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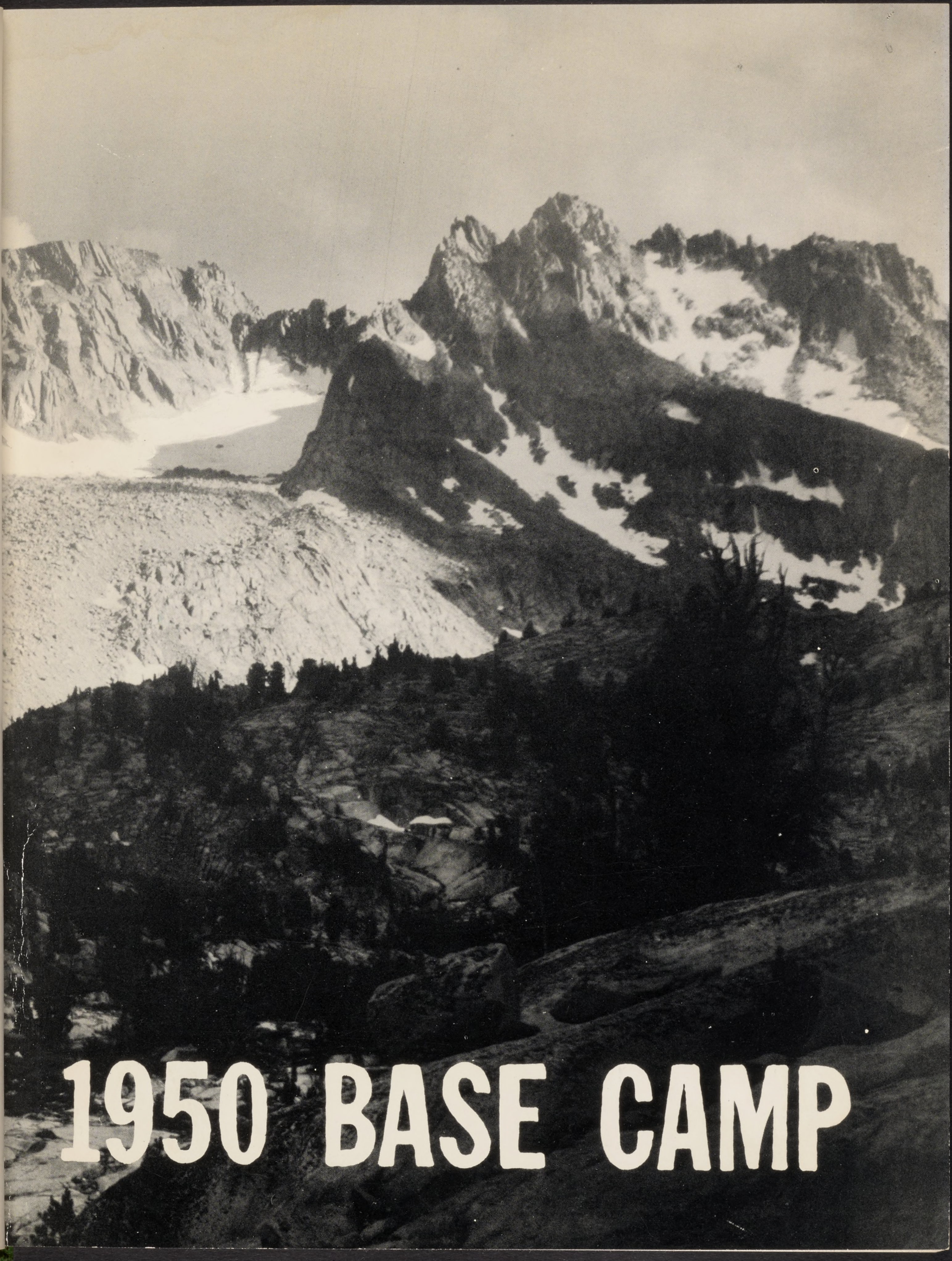
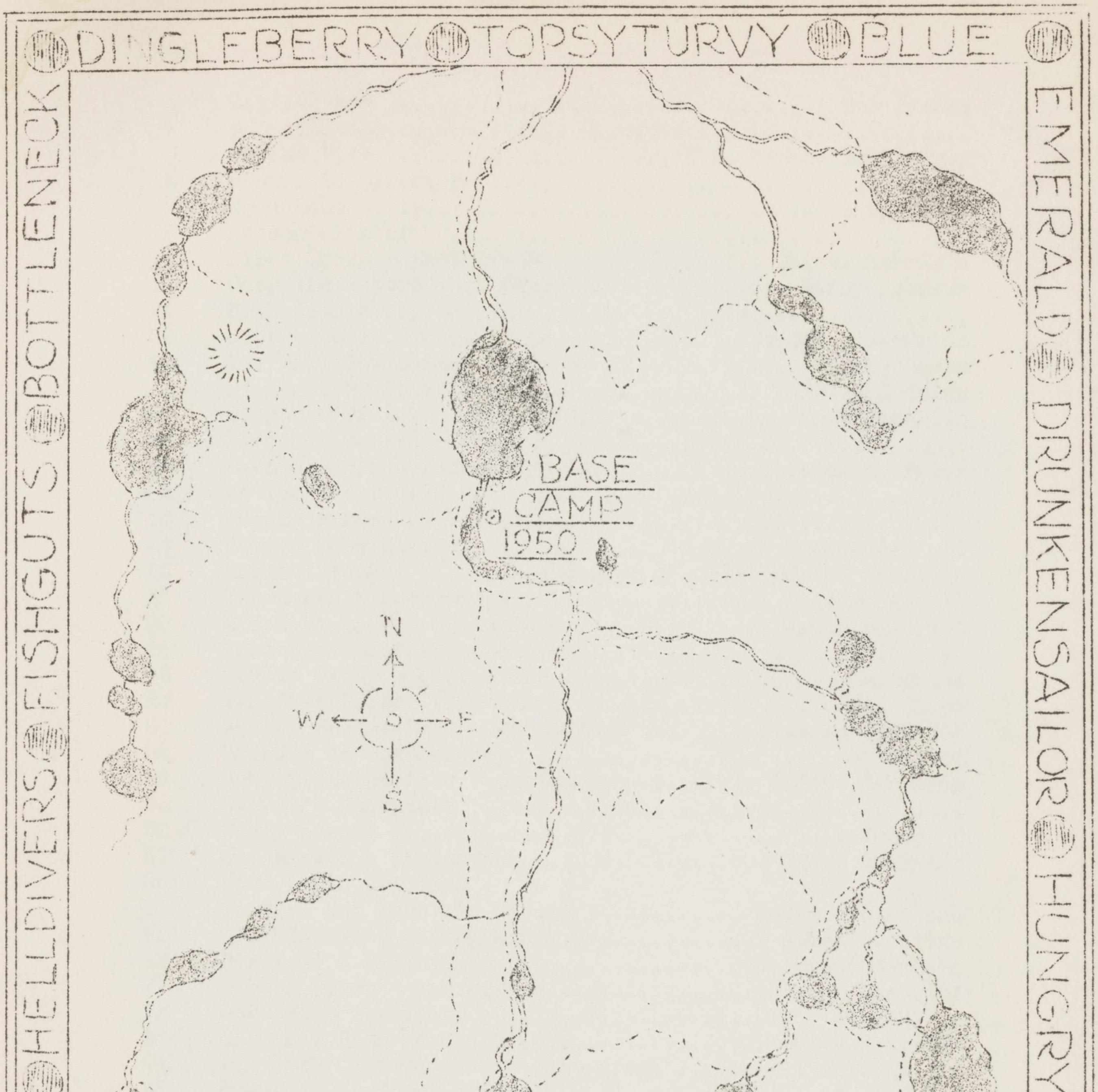


1950 BASE CAMP


DINGLEBERRY
TOPSYTURVY
BLUE
EMERALD
DRUNKENSAILOR
HUNGRYPACKER
BLUEHEAVEN
MOONLIGHT
ECHO
MIDNIGHT
HELLDIVERS
FISHGUTS
BOTTLENECK
BASE CAMP 1950
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IN APPRECIATION

The Sierra Club truly can be proud of its Base Campers. This year, they successfully proved their worth by: 1) exploring new and unmapped territory and thus extending the appreciation of our scenic wonderland; 2) demonstrating an inherent spirit of self-sacrifice and cooperation, especially under trying circumstances; 3) and finally by having a good and refreshing vacation and returning home fortified against the trials of city life.

About the first and third items, I'll leave the telling to our little volume, the 1950 Base Camp Book. The second requisite to a successful camp, we are all too prone to take for granted. We all remember vividly how everyone turned to so willingly that cold night when we brought Pauline back from Powell Glacier. We can all be proud of the spirit shown that night by the whole community, but I'll bet that not one of you has given a second thought to the many little sacrifices that marked every day in camp. It started that very first evening at the Packer's Station, when Rodney Johnson organized a community breakfast for those who were misled by our erroneous announcement. It followed spontaneously the next day in the trading of excess dunnage, saddle horses, lunch material at Blue Lake, in welcoming the newcomers into Camp, finding bedding spots for them, helping commissary get organized, serving dinner, rustling campfire wood, etc., etc., etc. That was but one day. Every succeeding day was like it, only more so.

That's why I say the Base Camp was successful and why the Sierra Club can be proud of you all---every one ofyou. No, we won't start mentioning names. We tried that once and found it duplicated the personnel list. Besides we know that we have all been more than repaid by the very doing of our little bits. So I bespeak both your leaders and your fellow members, when I thank you, and you, and you.....

Of course you won't have a chance to thank our two faithful Camp Reporters and Co-editors---Daisy Johnson and Hazel Simon. They have been both working hard ever since camp closed. Hazel also undertook that little-appreciated job of arranging transportation for the northerners.

Two other before-and-after camp workers who deserve some credit are Marion Jones and Mary Galton. They arranged the Base Camp programs in the south and aided with the Reunions---but there we go again, for these two girls never stopped in their efforts to help others.

Taken for granted are the photographers---cussed roundly in camp, now praised to the sky, and properly so. We thank them personally for lending their kodos for the Club showings, and particularly James MacBride for the wonderful collection of masterpieces which beautify this book. This same appreciation goes for the other contributors to the following pages. Space limitations did not permit us to use all of the excellent material sent in---so please forgive us.

We are sorry to announce that for the first time in Base Camp history, we have had a serious accident. Every member is greatly chagrined over the mishap which befell Pauline Praasterink as she crossed from the snow to the rocks near Powell Glacier. All of us who were with her during that trying ordeal are proud of her fortitude and brave self-control. Never a word of complaint or impatience, as the stretcher was worked down over the talus blocks along the trail and through streams.

To thank everyone who helped that night would again mean listing everyone in camp, for everybody came forth willingly and readily---each within the limits of his or her ability. Yet I must mention a few, whose faces come back to me out of the nightmare we all went through together that night. There were Cliff and Les, who with superhuman effort released Pauline from beneath that great boulder. There were the two doctors Harold Marquard and Pierre Walker and their expert assistant Arthur Grannatt---all of whom reached the patient within an hour of the accident and improvised a splint for her injured limb. There were Ledyard Stebbins and Al Gustus, who ran back to camp for help and then aided on the stretcher. There was Jane Collard who relieved the men of their loads that they might be free to handle the stretcher.

It was a grim and determined group of men which eased the suffering girl down the moraine covered slopes below Powell, across the inlet of Moonlight Lake and through its long talus fields. Over the hump between Moonlight and Topsy-Turvy, the tiring men climbed, worming the litter around, between and over rocks, trees and stumps that lined the deep, narrow furrow, called a trail. Welcome were the fresh crews that came to our aid in the deep mires of the upper meadows and took over on the polished domes above camp. Among the weary and panting men who traded flashlights for a spell in the carrying crews were (and I hope that my faulty memory will be forgiven by those whom I have forgotten): the two Petes (Friedrichsen and Raven), Fred, Fritz, John, the three Jims (Kain, Koontz, and MacBride), Rolf, Reno, Reg and Bill; Ned, Jack, Bob and Pen; Gerrit, Rocky, Gene, Ted, Errol and all of the first worn-out group who insisted on returning to do more than their share.

But the men were not alone in their unselfish participation. Every woman in camp, after being ordered to bed until needed, was there on hand to take over when we reached camp, some to tend the patient, others to revive the exhausted stretcher bearers with hot food and drink. Then after the doctors had ministered to Pauline and all had retired to their bags, two kept on with their vigil, Dr. Ernest Lion and Grace Marston, R.N. For me, that night's work stands out as one of the greatest demonstrations of cooperative communal activity I have ever witnessed. Truly the Sierra Club can be proud of the Base Campers, for this, if for no other reason.

I know that all of you who benefited by her ministrations have thanked Grace Marston for her tender care at the First Aid tent, throughout the four weeks. But for the benefit of those who were fortunate enough not to have visit her little domaine, I want to tell her how much we appreciated having her undertake this responsibility and thus relieve both the doctors and myself of worry over the petty ills, bruises and burns which occurred daily. Grace was our little white angel (in blue jeans) and our sympathetic Florence Nightingale.

We also mention another patient who had us worried, but due to the prompt attention of our doctors and the speed with which Jim Koontz got horses up into camp, it was only for a short time. Mary Marquard was taken down by an acute attack of appendicitis. Her husband and Dr. Walker promptly diagnosed the case and that afternoon found her in the hospital at Bishop. She was operated upon that night and was up and around before camp closed.

Since the Sierra Club isprimarily a conservation and therefore an educational institution, I wish to stress our gratitude to those who aided in bringing to us a richer appreciation of the scenery and life around our spectacular campsite. Both Enid Michael and Ledyard Stebbins presented a truly worthwhile facet to our program. They both were ever ready to answer questions and supply information about the flora and fauna of the region and thus increase our fund of outdoor knowledge. In their plant collecting, they were aided by Peter Raven who compiled the Botanical List at the end of this book, John Thomas Howell editing it with a beneficent eye.

We also wish to give full credit to Professor Gene Serr for the meticulous care with which he conducted the "Snow Evaporation Project". Daily he climbed to his 12,200-foot snow bank under the east face of Mt. Darwin to make his recordings. Each week he made these same records every hour, night and day, both in camp and at that bleak and frigid station. We are looking forward with a great deal of interest to the results of his tabulations.

I will not mention Dean and Marcella Curtis, nor Ned Thompson who filled in when they were absent, nor the excellent menus they concocted. The fact that everyone claimed that the meals were better than on any other Base Camp is praise enough. That and the way everybody consumed the food is all of the praise we in commissary ask for.

The leadership was ably shared by Bob Thompson taking care of the mechanics of camp life and Cliff Youngquist taking over some of the hikes and climbs. Both men are experienced leaders with exceptional personalities and to them goes a great deal of credit for the smooth running of Camp. Other climbing and hiking leaders were Morgan Cuthbertson, Peter Friedrichsen, Ledyard Stebbins, Rolf Godon and Jim Koontz. The last named undertook most of the leadership of the Ph.D. climbs and some of the maiden aunt hikes as well as a share of the scientific measurings for the "evaporation project."

More than ever, this year, can we state, that the unquestioned success of Base Camp can be attributed to the perfect harmony and 100% cooperation of every member, each shouldering a share, some more than others, but all according to his or her ability. For this the camp management thanks you, one and all.

In conclusion we wish to acknowledge the two couples who sponsored this year's Base Camp Reunions. Both affairs were strikingly unusual -in their beautiful outdoor settings, in the enthusiasm and numbers of the attendants, in the gorgeous showings of pictures and in the graciousness of the hospitality of our hosts.

In the north, the Reunion was held at the Lafayette home of Kay and Noel Izett, opposite Mt. Diablo and overlooking Moraga Valley. In the south, it was held at the home of Liz and Morgan Cuthbertson, on the top of a mountain with a fairyland view of Hollywood far below on one side and the full expanse of the San Fernando Valley on the other. Several groups journeyed to the opposite end of the State to attend both Reunions.

Unquestionably, I have left out much which should have been included in these and subsequent pages of the Book. Also you will find some errors, I am sure. So please make the necessary corrections in your own copies and until our trails cross again, the best of good luck and happiness.

Oliver Kehrlein

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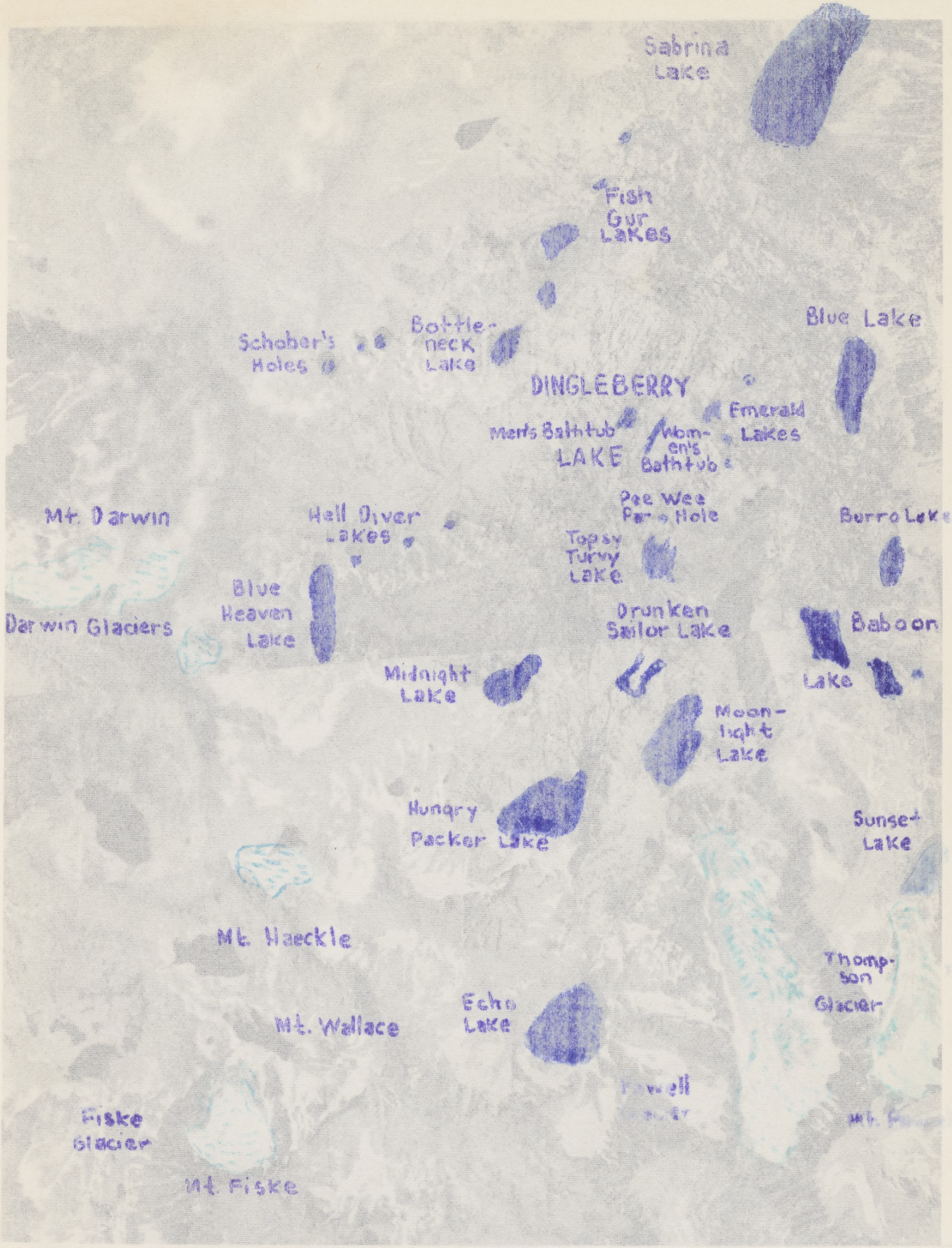
Sabrina Lake
Fish Gut Lakes
Blue Lake
Schober's Holes
Bottle-neck Lake
DINGLEBERRY LAKE
Men's Bathtub
Wom-en's Bathtub
Emerald Lakes
Pee Wee [illegible] Hole
Burro Lake
Mt. Darwin
Hell Diver Lakes
Topsy Turvy Lake
Blue Heaven Lake
Darwin Glaciers
Drunken Sailor Lake
Baboon Lake
Midnight Lake
Moon-light Lake
Hungry Packer Lake
Sunset Lake
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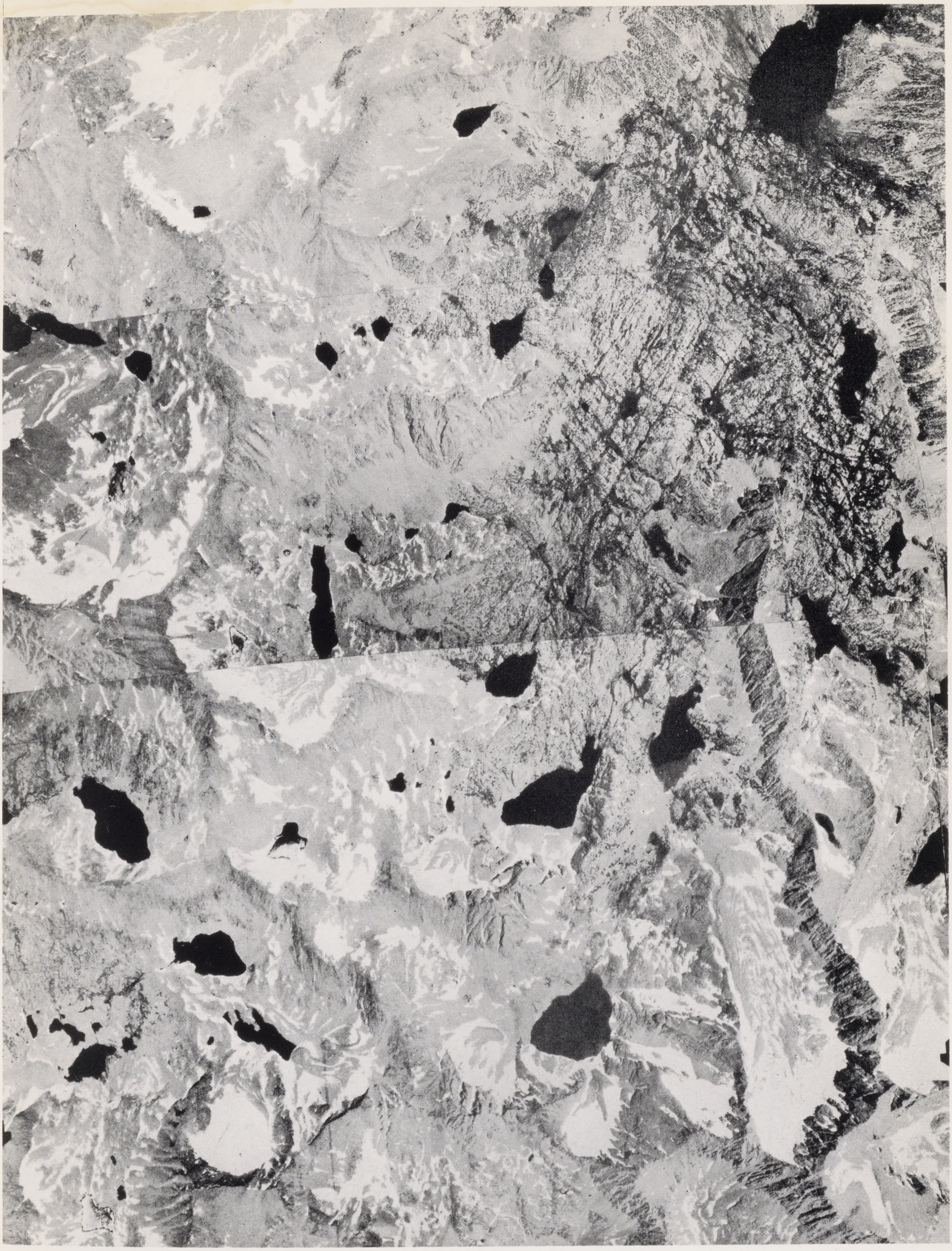
Thomp-son Glacier
Echo Lake
Mt. Wallace
Powell
Mt.
Fiske Glacier
Mt. Fiske



eport to the Directors:

Our members found the upper basin of the Middle Fork of Bishop reek an ideal location for the Base Camp - a diamond in the rough - eautiful but rugged. Time was all too short to visit all of its many nmapped lakes, rocky gorges and glaciated amphitheaters. Photographers oon ran out of kodachrome film.

Our usual educational program was conducted in botany and ird study by Enid Michael; in genetics and ecology by Prof. Ledyard tebbins; in geomorphology by myself and in photography by Larry Lewin and ames MacBride. "The Highest Flower Show in the World" was artistically aintained and carefully labelled by our naturalists throughout the month. lant specimens were collected for the California Academy of Sciences by rs. H. Floy Bracelin and Peter Raven. Professor Eugene Serr and his son onducted a "snow run-off and evaporation project" at various elevations p to 13,200 feet, which should prove valuable in our State water resources roblem. Evaluation of their findings are now being prepared for publiction.

The Base Camp menus, even better than usual, were prepared by ean Curtis, assisted by Ned Thompson. Our campfire programs were exeptional, with interesting and entertaining material developed by Arnold all and Les Toby. Our musical artists included Ruth L'Esperance, Mary hamberlain, Ivy Foster and Hazel Simon. Our medical needs were cared or officially by Drs. Ernest Rogers and Pierre Walker, with Drs. Clark ichardson, Harold Marquis and Ernest Lion in consultation. Grace Marston, .N. proved invaluable in charge of first aid, especially during the trying imes when our two casualties were being treated.

The two cases referred to, included a fractured femur and an ttack of acute appendicitis. Both patients were promptly taken to the ospital at Bishop and are now well on the way to recovery.

Camp management was shared with Bob Thompson and trip leaderhip with Cliff Youngquist, Peter Friedrichsen, James Koontz, Morgan Cuthertson and Ledyard Stebbins.

Miss Olga Arendrup, international student from Holland, sponored by Ann Crowe, proved a most interesting and popular member of the roup. Another interesting member was Lucy Richardson, a recent polio vicim, whose rehabilitation astonished the group. Lucy had come to camp to est the recovery of her limbs. She was able to hike, dance, rock-climb nd keep up with the most active on strenuous trips.

Some idea can be gained of the diversity of our "out-of-camp" ctivities from the following tabulation, culled from the sign-out book:

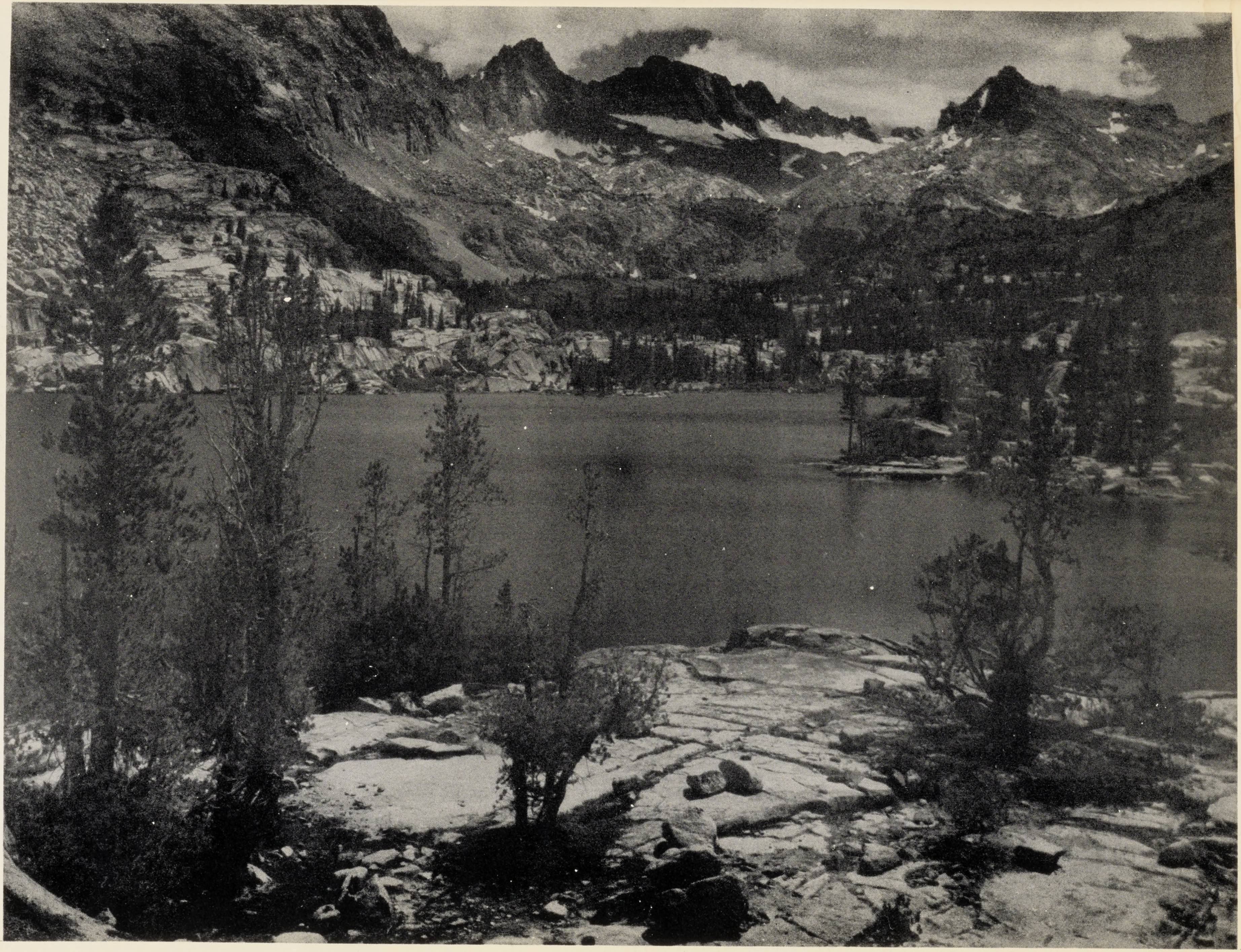
937 went on organized trips to nearby points of interest.
144 climbed minor peaks.
89 made ascents of 13,000 foot peaks, most of these from the difficult, glacier approach.
85 explored the adjacent glaciers.
256 participated in the natural sciences sessions.

An exciting horse-shoe pitching contest was conducted by Roy Crites.
Our social events were presided over by Charlotte Youngquist and her committees.
Rock climbing, this year, included instructions in the use of pitons and ice and snow technique.

From the preliminary estimates, we figure that the outing was financial success.

It is our belief that through this year's Base Camp, some 226 mbers have gained a finer and deeper appreciation of our Sierra scenic lues and thereby acquired a fuller realization of the primary objectives the club.

Oliver Kehrlein
Base Camp Leader



BLUE LAKE Mt. Thompson and its glacier-- center skyline by James MacBride

SIERRA CLUB BASE CAMP #1
DINGLEBERRY LAKE
July 16 - 29, 1950

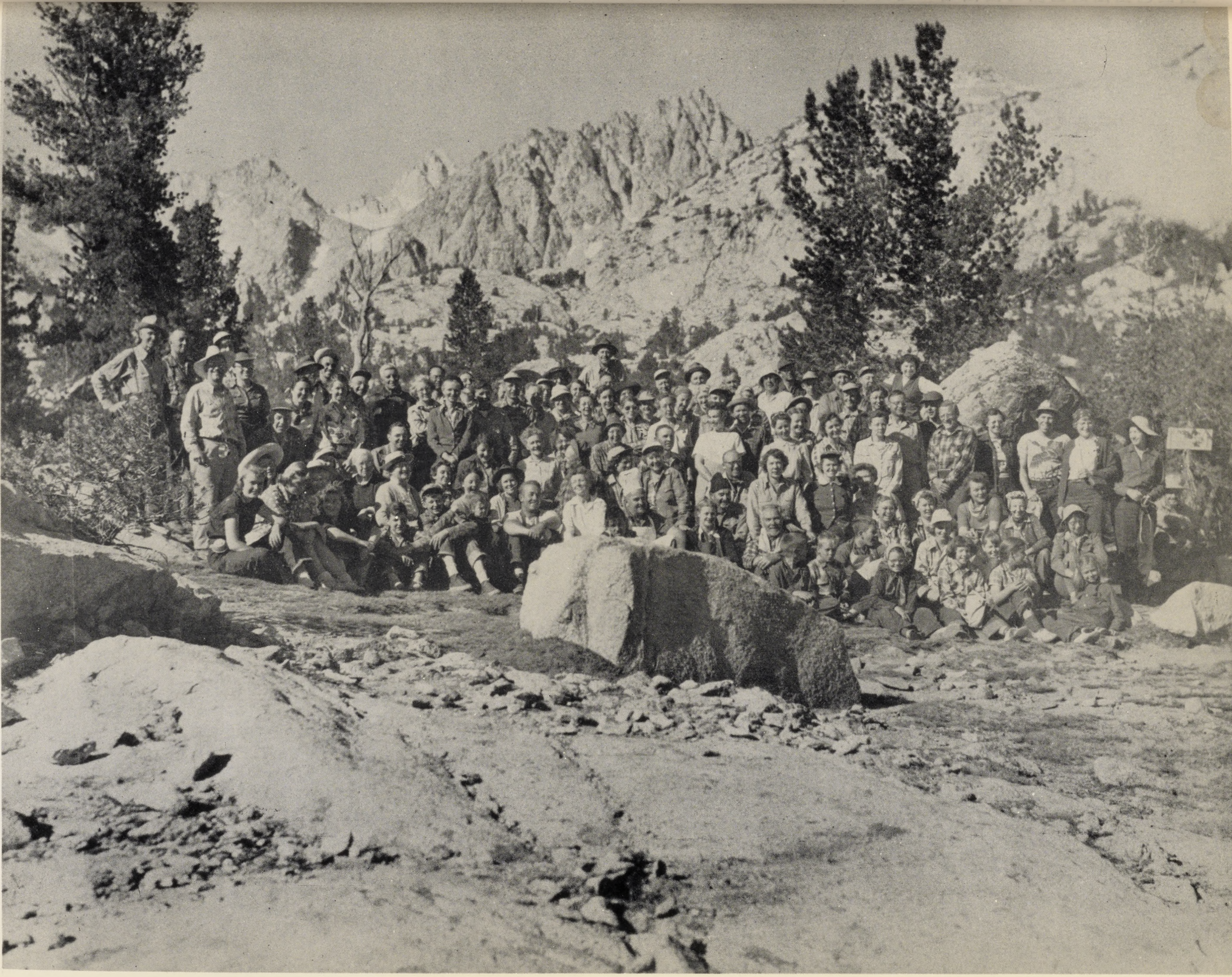
P. F. Ainsworth	1330B Fifth Street, Glendale 1
Ruth Ainsworth	" " " "
Ann Barns	2477 Washington Street, San Francisco 15
Richard Belli	15 Cherry Street, San Francisco 18
N. Floy Bracelin	2214 Vine Street, Berkeley
Alice Caflisch	7014A Rita Avenue, Huntington Park
Anita Carrasco	2310 - 25th Avenue, San Francisco 16
Marie Chabaud	1474 Sacramento Street, San Francisco
Mary A. Chamberlain	2523A Gough Street, San Francisco 23
Ethel P. Claypool	Rt. 13, Box 315, Fresno
Lois Claypool	" " "
Frank Connelly	638 So. New Hampshire Avenue, Los Angeles 5
Florence Crane	1966 Tamarind Avenue, Hollywood 28
Elizabeth Cuthbertson	3535 Wonderview Drive, Los Angeles 28
G. M. Cuthbertson	" " " "
Everard L. Denis	675 Dolores Street, San Francisco 10
Jewel M. Denis	675 Dolores Street, San Francisco 10
Elizabeth De Priest	809 South Ynez, Monterey Park
Stephenie Deutsch	2117 Broderick Street, San Francisco 15
Eloise F. Dyer	General Delivery, Carmel
Bill Evans	Box 138, Rt. 1, Mill Valley
Mrs. Murphy Evans	" " "
Edgar W. Frank	1102 Sutter Street, San Francisco 9
Eva Frank	" " "
Mary E. Galton	2795 Wynwood Lane, Apt. 1, Los Angeles 23
Ada Gates	317 South Avenue 60, Los Angeles 42
Elmer Gates	" " " "
Eunice L. Gibson	353 Fair Oaks Street, San Francisco 10
Earl Gilmore	516 Sutter Street, San Francisco 2
Charles M. Gooding	2247 Gower Street, Los Angeles 28
Anna Graham	2635 Corralitas Drive, Los Angeles 39
Donald Graham	" " " "
Howard Jay Graham	" " " "
Mary Wilson Graham	" " " "
Lucy A. Hall	120 Tilton Avenue, San Mateo
Sylvia Hermanson	1425 Taylor Street, San Francisco 11
Barbara Bacon Hinshaw	1827 San Juan Avenue, Berkeley 7
Helen W. Hinshaw	" " " "
Thomas D. Hinshaw	" " " "
R. C. Hornberger	2109-41st Avenue, Oakland
Evelyn R. Houston	
Robert R. Houston	PAA Engineering, Box 151, South San Francisco
Madeline E. Irons	488 San Jose Avenue, Los Gatos
Rollin H. Irons	" " "
Lora F. Ives	3261 Jackson Street, Corvallis, Oregon
Collin Izett	P. O. Box 8, Lafayette
Kay L. W. Izett	" " "
Mary K. Izett	" " "
Noel C. W. Izett	" " "
Angelina Jefferis	232 N. Avenue 54, Los Angeles 42

Daisy Johnson	1530 Mangrove Avenue, Chico
Mrs. Erin Johnson	171 Avenida Street, Berkeley 8
Olivia R. Johnson	201 So. Rockingham Avenue, Los Angeles 49
Richard G. Johnson	1530 Mangrove Avenue, Chico
Rodney Johnson	626 N. Rosemead Blvd., Temple City
Edith S. Katten	425 Berkeley Park Boulevard, Berkeley 6
Murrey Kehrlein	5781 Buena Vista Avenue, Oakland 18
Bessie Kibbe	1534 Grove Street, Berkeley 9
Betty Kline	5000 Cypress Avenue, Richmond
Ralph Kline	" " " "
Sandra Kline	" " " "
Wilma Kline	" " " "
Jim Koontz	Garrison Road, Owings Mills, Maryland
Edna I. Laumann	2451 Le Conte Avenue, #207, Berkeley
Raymond G. L'Esperance	275 Miller Avenue, Mill Valley
Ruth L'Esperance	" " " "
Larry Lewin	3049 W. 8th Street, Los Angeles 5
J. C. Lewis	379 - 62nd Street, Oakland 9
Phyllis M. Lewis	379 - 62nd Street, Oakland 9
Inez Logan	2626 Benvenue Avenue, Berkeley 4
Ruth Stocking Lynch	Dept. of Botany, University of California Los Angeles 24.
Nancy MacCabe	26 Prescott Court, San Francisco 11
Mrs. Etta MacEwen	1171 Glen Arbor Avenue, Eagle Rock, Los Angeles 41.
Henry Manheim	1706 So. Orange Grove Avenue, Los Angeles 35
John M. Marston	613 Salvatierra Street, Stanford
John Morley Marston, Jr.	" " " "
E. Grace Marston	" " " "
Arthur Mayers	2447 Echo Park Avenue, Los Angeles 26
Alice McKee	915 No. Stoneman Avenue, Alhambra
Allen McKee	" " " " "
Eleanor P. McKee	" " " " "
Norman C. McKee	" " " " "
Gladys R. Michel	227 Edgewood Avenue, San Francisco 17
Charles B. Morrey, Jr.	210 Yale Avenue, Berkeley 8
Robert A. Morrey	" " " "
Carrye Opton	1920 Sacramento Street, San Francisco 9
Frances Payne	2820 San Jose Avenue, Alameda
James Perley	2673 Dundee Place, Los Angeles 27
Anne Plummer	2710 Haste Street, Berkeley
Hazel Quasdorf	534 N. 28th, Corvallis, Oregon
Mildred Quasdorf	" " "
Harry J. Raab	5658 College Avenue, Oakland 18
Marion E. Ray	872 Commercial Street, E. Weymouth 89, Massachusetts
Clark Richardson, M. D.	512 North Sierra Drive, Beverly Hills
Lucy Richardson	" " " " "
Mrs. Ernest S. Rogers	Suite 208, 2107 Van Ness Ave.,San Francisco 9
Maurice Saeta	2314 1/2 Miramar Street, Los Angeles 4
Eugene Serr II	50 College Park, Davis
Eugene Serr III	" " " "
Carol L. Smith	2332 Hollyridge Drive, Hollywood 28
Mrs. Edris B. Smith	4451 Ethel Avenue, North Hollywood

Errol Smith	1961 Jefferson Street, San Francisco
Margaret W. Smith	2332 Hollyridge Drive, Hollywood 28
Gertrude Somerville	1240 Carlotta Avenue, Berkeley 7
Mary E. Sprott	551 Grevilla Street, Porterville
Helen B. Thompson	6508 Dempsey Avenue, Van Nuys
Margaret A. Thompson	2215 Westboro Avenue, Alhambra
Marjory Tregea	1124 Amador Avenue, Berkeley 7
David H. Utley	11323 Albata Street, Los Angeles 49
James S. Utley	227 W. "F" Street, Ontario
H. B. Van Etten	6415 Regent Street, Oakland
Blanche Vranna	887 Washington Street, Albany
Ada Wall	c/o Sierra Club, 427 West Fifth Street, Los Angeles 13.
Arnold Wall	1659 Lyman Place, Los Angeles
Robert W. Wall	" " " " "
Mrs. Richard White	138 Elbridge Road, New Britain, Conn.
Tina White	" " " " "
Erma Witte	5003 Hartwick Street, Los Angeles 41
Charlotte V. Youngquist	2818 Effie Street, Los Angeles 26

COMMISSARY GROUP

Barton Adams	2420 Benedict Canyon Drive, Beverly Hills
Dean Curtis	10210 La Salle Avenue, Los Angeles 47
Peter Friedrichsen	805 E. 65th Street, Inglewood
Rolf Godon, Jr.	Box 501, Rt. 1, Saratoga
Oliver Kehrlein	71 Jordan Avenue, San Francisco 18
Enid Michael	2285 Cooley Place, Pasadena
Edward G. Thompson	6508 Dempsey Avenue, Van Nuys
Robert A. Thompson	814 Brent Avenue, South Pasadena
Dr. Ernest Rogers	2107 Van Ness Avenue, San Francisco
R. Cliff Youngquist	2818 Effie Street, Los Angeles 26



BASE CAMPERS #1 by Oliver Kehrlein

In the years to come, when you will turn to these pages (as I have already done with other B. C. Books) you will be very thankful for the faithful work of our Campfire reporters. Daisy Johnson missed nothing of our daily activities, as reported at campfire, and has added enough sidelights to maintain interest in what might otherwise have become a dry list of facts and statistics. I am glad that the members appreciated what a chore she had accepted by voting her a polished cup. Ed.

CAMPFIRE REPORT

1st Camp

by Daisy Johnson

July 16. At our first campfire, Oliver announced activities for the following day and introduced the commissary staff. After 11 years as leader of Base Camp, Oliver contemplates taking less responsibility, and awarded leadership feathers to Bob Thompson and to Cliff Youngquist.

Mary Galton proposed that we wear our "dog tags" on the back so that others could sneak up and look instead of trying to peer at the name in front of the person.

To help us know the mountains a little better, Oliver introduced Enid Michael, who, as official botanist in the absence of Tom Howell, will act as Camp Naturalist, and on Tuesday will lead the first of a number of short walks to acquaint us with some of the flowers and birds of the area.

Meetings announced were those for First Basemen (the providers of wood); grandmothers--to discuss the activities in which they want to indulge; rock climbers, on how to use a rope, how to tie a bowline and other useful knots, belaying, rappelling, and climbing; meetings for maiden aunts, Ph.D.'s, fishermen, and engineers (to plan jobs they believe need to be done).

When introduced, the camp doctor, Ernest Rogers, stressed particularly "be wary of the sun--overexposure can be dangerous; take care of your feet--prevent blisters."

Oliver repeated the two real rules of Base Camp. 1. No one must go out of camp alone. 2. Everyone must sign out. He told us what to do if we ever get lost in the mountains: Sit down and build a fire--at such a time our most valuable possessions would be matches, flashlight, something to eat, adhesive, knife.

The Sierra Club has been accused of depleting the fish in areas where it camps--Oliver will furnish the Isaak Walton League with a complete fish report to refute this mistaken belief. The report will include number of fishermen, and number of fish taken from specific locations day by day.

Oliver pointed out to us Mts. Powell, Haeckel, and Darwin just before the sun set. We are proud, as usual, of the mountains which form the setting of our Base Camp and inspire us to perform climbing feats.

JULY 17. Today the engineers put up the tarp near commissary, in case of rain, and filled the "ice Box" with snow.

At campfire Heinie introduced himself as "Hector the Garbage Collector", and introduced his two daughters (Carol Smith and Mary Kay Izett).

The location of women's and men's bathtubs was announced. Someone left his soap at the men's bathtub. Leonard said he left it there, thinking that the owner might return some day for a bath. Dick thought it might be a good idea to leave it so the fish caught in the lake wouldn't have to be cleaned.

Enid Michael suggested we watch for the Pine Marten, one of the rarest of the animals to be seen here. Other animals we might see include marmots, coneys--an animal as large as a white-footed rabbit--water beaver in the streams, and of course, the Belding ground squirrel. Oliver asked us to report any evidence of the big horn sheep, saying that they make their beds quite high up.

He told us of the record being kept during the Base Camp to show whether evaporation from snow exceeds run-off above 12,000 feet. Fifty pounds of cement were carried up by Jim Koontz and Gene Serr to the base of a large snow bank above 12,000 feet and a weir built to measure the water flow. Gene checks the run off once every 24 hours, and this week is spending 24 hours there checking the temperature, dew point, barometric pressure, wind velocity and measuring the flow every hour.

Mary Galton presented Cliff Youngquist with a green Tyrolean hat for his feather. True, it is none too large--but he wears it--but not in the sun.

Tomorrow the Grandmothers will climb Grandma's Nubbin, nicknamed "Grandma's Noggen" by Buck Kehrlein.

Pete Izett and Morley Marston put on a short skit: Diner to waiter: "Look at the stick of wood I found in my cottage cheese!" Waiter: "What do you expect for a quarter--the whole cottage?"

Cliff Youngquist spoke of the Geology of the Owens Valley. Leonard Flicker sang "Wagon Wheels", "Down Mexico Way", and "Old Black Joe".

JULY 18. Enid Michael today led a botany walk and discussed flowers by families. This botany enthusiast was surprised to learn that columbine is in the buttercup family.

Heinie registered his first complaint: he had no fiancees at the moment. Bob Thompson related how Heinie has had many fiancees but so far they always manage to marry someone else.

Ruth L'Esperance entertained at campfire with two violin selections "Serenade" by Caselli, and " Londonderry Air" arranged by Fritz Kreisler.

Mary Galton's trained flea act turned out tragically when Hezekiah deserted. When Mary thought she had recovered him in Bob Thompson's beard it turned out to be another flea!

Larry Lewin, Secretary of Camera Pictorial and Foto Fan (?) talked about "How to Take Pictures in the Mountains." Summary of this talk appears elsewhere in this book.

A very clever midget act was put on by Mary Galton and Marian Jones.

JULY 19. Heinie registered his 2nd complaint and announced a whisker contest. Bob Thompson objected that Heinie already had a head start and that he should be given 11/14 days credit only.

Eloise Dyer reported on the climb of Grandma's Nubbin by seventy-one persons. She said they had an exciting time going over the chock block in a chimney which was a new experience to many of them. They stopped at Bottleneck Lake and some of the party went on to Fish Gut Lakes and had some success fishing.

Oliver reported climbing bordering on fourth class in several places on the Nubbin. With the help of Bob and Pete 57 reached the top.

Morgan Cuthbertson told of the Ph.D. trip to the unnamed Spur of Haeckel. Morgan, Mary Galton, Jim Kuntz and Bill Evans made this trip. Morgan was very enthusiastic over the unexcelled photography in this region. He mentioned Hungry Packer, Moonlight, and Echo Lakes as being very beautiful.

Kay Izett registered a complaint because she had helped to entertain the children today in their allotted area and a hoard of rock climbers descended upon the area. The rock climbers promised to be baby sitters if this ever happened again.

Rock climbing proved very popular for both participants and kibitzers. Oliver, Cliff and Dick helped all who were interested, to tie the essential knots, and belaying, rappelling and rock climbing were demonstrated by the leaders and tried by many. Such practice can prove very valuable in later mountain climbing.

The case of whether any washing should be allowed above commissary during certain hours was tried.with all the legal formalities. Mary Galton, as tester of the water before and after, declared that there was a certain "zing" to the water that was taken from the river after being washed in.

JULY 20. When the people on Oliver\s trip had not returned by the time for campfire, Bob Thompson took over. He reported that 78 had reached Echo at noon. Enid Michael talked to them at luncheon about the flowers of the area and it was interesting to see how the botany differed from that at camp.

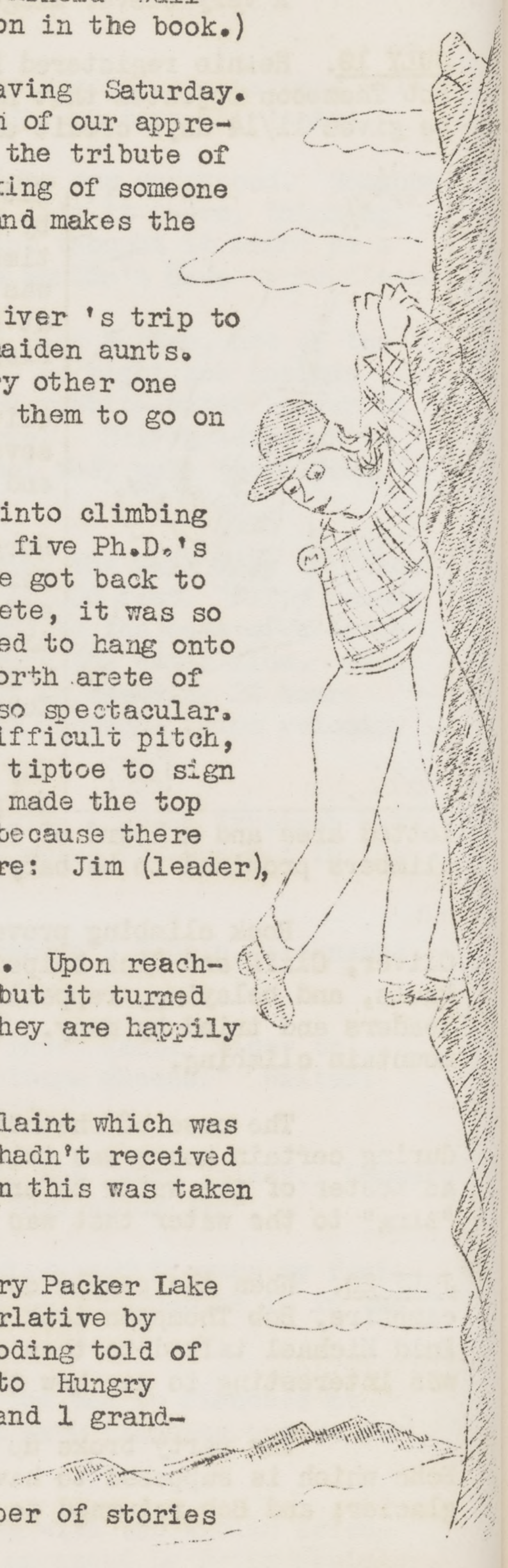
The party broke up into fishermen; nine who went up to the lake above Echo which is supposed to have icebergs; Oliver, with 28, proceeded to the glacier; and Bob returned to camp with his party at four.

At campfire community singing competed with skits and games for entertainment.

When Oliver's group arrived at nine, tired and hungry, it was decided that reports of the day's trips would be held over until the Friday night campfire.

JULY 21. The Junior Girls sang a song dedicated to Arnold Wall and did a skit "Oliver's Nightmare." (See further on in the book.)

Oliver announced that Marion Jones was leaving Saturday. A polished steel cup was presented to her as a token of our appreciation for her spirit of helpfulness. He gave her the tribute of being a most objective person. "She is always thinking of someone else. She always takes everything as she finds it and makes the most of it."



Babs Rogers gave an eloquent account of Oliver's trip to the Powell Glacier the day before with 28 intrepid maiden aunts. There was a fixed rope to aid the climbers, and every other one wore crampons on the ice field. Time did not permit them to go on to the bergshrund, but it was a wonderful trip.

Mary Galton declared that she was heckled into climbing Mt. Haeckel. She explained that the arete which the five Ph.D.'s crossed was really a gigantic picket fence. When she got back to the pass she couldn't believe she had crossed the arete, it was so amazing. There were only two places where she refused to hang onto finger holds with a 1,000 foot exposure. From the north arete of Mt. Wallace, which was climbed next, the view was also spectacular. Mary and Daisy practically refused to try the last difficult pitch, but Jim Koontz insisted that they could not stand on tiptoe to sign the register, so with the direct aid of the men they made the top and sat with feet hanging over the side of the rock because there was barely room on top for five people. The five were: Jim (leader), Mary, Bill Evans, and Dick and Daisy Johnson.

Mary related how she found Hezekiah on top. Upon reaching camp Pete reported that he had found Hezekiah, but it turned out to be Eustacia, Hezekiah's girl friend, so now they are happily reunited.

Heinie registered his 3rd and serious complaint which was really a gripe because this was his birthday and he hadn't received a birthday kiss from Nancy McCabe. He was happy when this was taken care of.

The Saturday trip for grandmothers to Hungry Packer Lake was announced. The scenery has been pronounced superlative by photographers. By way of recommendation, Charles Gooding told of the trip which he, Mary Galton, and Ruth Lynch took to Hungry Packer. He declared that one Ph.D., 1 maiden aunt, and 1 grandmother made the trip--he being the grandmother.

Herb MacEwen, "Dingleberry Bard" told a number of stories and sang some unusual songs.

Charles Gooding, of #7 Neanderthal So. offered shares in Dingleberry Zing, Inc.

Olga Arendrup told of her dangerous life in the Underground in Denmark during the war.

JULY 22. The grandmothers who went with Oliver to Hungry Packer Lake were rewarded by spectacular photography as a result of the hail and rain storm. Marion Ray reported having taken 28 Kodachromes, all of which should be unusually beautiful.

Bill Evans told of the Ph.D. climb of Mt. Powell, with Jim Koontz as leader and Ralph Godon as third member of the party. The Powell Glacier lies at 13,000'. Bill said "On top there is a sand plateau, oblong in shape, where there was a narrow snowdrift 350' x 60'. There is no doubt at all that snow was liquefying and draining off." They would have investigated further, but when the hail storm came the party hastened down from the top of the mountain. They saw an eagle on Powell, and on top they found Polemonium, Phacelia, and aster.

It was announced that John Marston will organize the First Basemen's show for Tuesday night. The Junior program for the next night will be managed by Margaret Smith with Kay Izett to help.

A radio program sponsored by Dingleberry Zing, Inc. was presented. The President, Charles Gooding, and the Vice-president and Engineer, "Ole" Youngquist, explained the plans for their product, including the sale of shares of stock in Dingleberry Zing, Inc. The President said "We not only propose to keep the Zing in Dingleberry Zing Water but we propose to increase it." A contest for a singing commercial was announced and an example of one was presented.

Dr. Rogers registered a complaint: he had no patients. We were glad to know that we are a healthy and careful lot.

Dr. Richardson gave a very enlightening discussion to answer the questions which had been asked him regarding "mountain sickness" and "second wind."

Marion Ray played "The Zulu Warrier" and two other selections on her harmonica.

Tonight Bob Thompson announced proudly that dinner had been served to over 100 people in about 3½ minutes. Olga objected that she preferred the five minute service.

JULY 23 (Sunday) - Commemorative service for Emily House. Cliff Youngquist told her story about the marmot which took her second sleeping tablet and awakened her with his snoring.

Cliff told us that her mother said "Emily is now in heaven making the angels laugh."

Program: Ruth L'Esperance - "Meditation from Thais" - Massenet
"The Old Refrain " - Fritz Kreisler

Emily's Tall Story of "The Glamaid" was read by Ada Gates

Arnold Wall and his group sang some of the songs written by Emily: including "Navajo", to the tune "When the Bloom is on the Sage".

Peter Friedrichsen told of some incidents which occurred while Emily House and some others were in the hospital following an accident on their Havasu trip.

Charles Gooding sang: "Going Home"
"Trees"

Moment of silent prayer.

Betty DePriest led the singing of "Abide With Me".

JULY 24. The grandmother trip went to Baboon Lakes via Emerald Lake today - 61 grandmothers in all. After lunch at Upper Baboon, 18 went on to beautiful Milky Lake on Mt. Thompson with Oliver. When Helen Thompson reported the trip at campfire she said the 18 had graduated and were now maiden aunts. They encountered snow, scree, and chimneys (without ropes).

Heinie told a Paul Bunyan story as his tall tale.

Bob Thompson told a short "tall" tale: "Once upon a time Oliver took a party out and returned in time for dinner!"

Norman Clyde was introduced by Oliver as the "foremost climber and mountaineer in the United States. There isn't a mountain in the whole of the Sierra that he hasn't climbed. He got the first ascent of most of those not climbed before 1920."

Norman Clyde talked informally, mostly about this region. He had a hotel below Dingleberry for a while. He makes the round of a trapline on skis once every ten days in winter. He said "the weather man hasn't been giving us any decent snow in the past few years. A few years ago I skied into this region on July 4th. Now I do well to ski later than May."

Speaking of names of mountains and lakes in the region, he remarked "Someone in Washington changed the name of Mt. Wallace. It is now "Ex-Wallace" and the peak south of Mt. Haeckel is now Mt. Wallace on the new Geological Quadrangle. I was amazed at the elevations given for some of the peaks on the new Quad. The elevations of many have been revised downward. The name Fish Gut shouldn't be allowed to appear on a map. The idea of allowing a beautiful lake to be named Baboon deserves a pretty bad adjective. Hungry Packer is a poor name too. Cassiope and brianthus are to be found in abundance at Baboon Lake and would have made a much better name for the lake."

Mary Chamberlain played the following violin selections:
Bach Air for G String
Gypsy Airs - Sarasate

Skit: Dean sang "O Promise Me" while Heinie's fiancees - all five of them - were left waiting at the church on Thanksgiving Day. They sang "I'm Gonna Wash that Man Right Out of My Hair." (Credit for this idea goes to Mary Galton.)

In the Dingleberry Zing Inc. singing commercials contest, eight entries were presented (see following pages).

JULY 25. Bill Evans reported the climb of Mt. Thompson with Morgan Cuthbertson and Jim Koontz (leader). They came to a buttress which was a truncated cone which they couldn't get up, so they took a traverse on the south side of the mountain. Coming down, they used the rope to rappel. At the top of a chute they saw what appeared to be quartz or marble. No one had climbed the mountain since 1939. It occurred to Bill that with a pack, ax, rope, crampons--what a miserable animal man is!

Morgan gave us his impression of the top. "The top of Mt. Thompson is unique. Never have I found anything like it on any mountain I have climbed. As we came up and looked at the high point on the mountain it looked like a castle of granite and quartz. The castle is about 100' x 30'. As I was about to photograph it lightning came and we climbed down the chute in a hurry!"

On Enid's early morning bird walk the following birds were seen: hermit thrush, white crown sparrow, Audubon warbler, water ouzel, chickadee, junco, rosy finch, Clark crow, green-tailed towhee. Other birds reported for the area include: grouse, osprey, sandpiper, and goshawk.

Reporting on the climb of Mt. Powell by Oliver, Norman Clyde, Jim Koontz (leader), and himself, Gene Serr said they crossed a 900' terminal moraine on the glacier and from a notch above they could look onto the Thompson glacier. They came onto glare ice where they used ice axes. When they were 200' from the top it started to rain, at about 10:30, and it rained most of the rest of the day. "On top there was an elevated valley with a big snow bank and quite a stream. Approximately 150 gallons a minute flow out of the valley with the big snow bank in it."

Oliver said it had been 11 years since he had climbed with Norman Clyde and he enjoyed it. They found Polemonium, Draba, Hulsea, wild current, and Alpine forms of daisy, phlox, Lewisia.

Cliff told us that last winter the Southern Sierra Power Company had performed an experiment in seeding clouds in this basin. They tried dry ice. They are now using a certain amount of salt and silver iodide. Cliff thinks the Los Angeles Power Company sent the plane to make it rain on him.

John Marston introduced the First Basemen's Show which was greatly enjoyed. (See following pages.)

Dr. Rogers announced that two days ago we had a visit from the Research Institute. They asked "Do you know what Zing is? We have isolated factor "Z". Any company could market a substitute by adding factor "Z". Stockholders beware!"

"The Happy Mosquito Family" written by Marcella Curtis, was presented by the Hinshaw family, Lois Claypool, Pete Izett, etc.

JULY 26. The Juvenile Show, directed by Margaret Smith, with Pete Izett as M.C. was well received by the audience (see following pages).

Cliff Youngquist told of the trip to the Darwin Glacier. "At the notch we could see the Darwin Glacier and the two strings of three led by Oliver, cross the glacier. Five of Cliff's party made a traverse onto the glacier wearing crampons. It took 40 minutes on the ice and a round trip of $1\frac{1}{2}$ hours to get to the glacier."

Lucy Richardson said the last part of the journey could be described as a five point landing. She recalled particularly the magnificent view from the glacier. The trip amounted to a personal and medical triumph for her. Twenty months before she contracted polio and was paralyzed below the waist and partly above. Complete recovery could hardly be hoped for. A research institute in this region has started a radical new treatment for polio with wonderful results. Six months ago she was placed under this treatment and her trip on the glacier proves her one hundred per cent recovery.

Earl Gilmore told of the thrilling and dangerous climb of Mt. Darwin by Oliver, Bill Evans, Gene Serr, Jim Kuntz, Dick Johnson and himself. When they took off onto the glacier with crampons and ice axes at the snow survey point Oliver told them of the hazards while on a glacier. Two ropes, with three men on each, were used, so that if a part of the snow peeled off, the other men could probably hold one who might fall. The storm was a hazard. There was hail and thunder off and on during most of the middle part of the day.

At one time, when Oliver was going across a chimney, a huge rock came loose, threatening those below. He tried to push the rock to a safe position while they retreated to a safer place, but he couldn't move it. There was a terrific flash of lightning on the other side of the mountain and Oliver and Gene Serr were burned by the lightning which did not strike them directly, but passed from the wet rock to them. Ordinarily mountain climbers would descend at once after such an experience but the others were anxious to complete the climb. They had hail rain and snow and they were cold. The rocks of the arete were slick with icy snow and it was this hazard that turned them back approximately 150' from the top.

Oliver asked Norman Clyde how he fared on the Maiden Aunt trip to the Glacier and he said "I'm still alive."

Dr. Ernest Rogers caught the largest fish of the trip so far - $14\frac{1}{4}$". He assured us that using a fly treated with essence of Factor "Z" had made his catch possible. In the ten minutes it took to land a small fish it grew to $14\frac{1}{4}$"!

Heinie had a complaint: His fiancee Lois had a nightmare while napping at lunch time and yelled "I don't want to marry Heinie."

JULY 27. Oliver asked for articles, good photographs for the Base Camp book, and kodachromes for the show at San Francisco and Los Angeles. Attention was called again to the "Highest Flower Show in the World." Plans for leaving were discussed.

The closing campfire production was announced by Bob Houston, who played "Humoresque" and "Old Dog Tray" (Stephen Foster) on the flute.
Maurice Saeta, the "Dingleberry Troubadour" sang a Harry Lauder number: "Bonnie Carrie McIntosh"
"Long Pan" (Arthur Mayers) told a tragic Chinese story which was interpreted by Grace Marston.
Next, Maurice Saeta was Chevalier singing "Louise" and "Mimi".
Larry Lewin told a number of "Shag" stories

Maurice Saeta as Jolson sang "Swanee River"

Arthur Mayers and Larry Lewin - "Kentucky Hills Tragedy" (a story)

As the final number Charles Gooding presented "Sextett from Lucia" which was enjoyed hugely by the audience (see following pages). The very effective costumes were executed by Marie Chabaud and Inez Logan.

Following are the names of the hostesses and committee chairmen who were responsible for the very successful Social Tea today--and the prize winners and judges:

Hostess: Charlotte Youngquist
Co-Hostess: Margaret Thompson
Chairmen:

Art	Peter Friedrichsen
Bandanas	Olivia Johnson
Costumes	Elizabeth Cuthbertson
Flower Arrangements	Enid Michael
Gadgets	Rodney Johnson
Prizes	Helen Thompson
Refreshments	Bob and Ned Thompson
Whiskers	Lois Claypool

Judges and Winners:

Art-(Marie Chabaud, Mary Chamberlain, Daisy Johnson)

Black amd white	Peter Friedrichsen
Design	Carrye Opton
Water color	Carrye Opton
Pen and Ink	Marion Ray

Bandanas-(Larry Lewin, Kay Izett, Murphy Evans, Babs Rogers, Olivia Johnson)

Most beautiful	Edna Laumann
Most exotic	Charlotte Youngquist
Most unique	Inez Logan
Oldest	Olivia Johnson
Best Modern	Murphy Evans
Best Oriental	Mary Chamberlain
Best European	Alice Caflisch
Best American	Elizabeth Cuthbertson
Best cotton	Sylvia Hermanson
Best for blue jeans	Elizabeth Cuthbertson
Best silk	Lucy Hall

Costumes-(Elizabeth Cuthbertson, Marie Chabaud, Edith Canton)

Neanderthal Man and Mate	Ernest and Babs Rogers
Huckleberry Finn	Marion Ray
Miss Dingleberry	Evelyn Houston

Flower Arrangements-(Enid Michael, Floy Bracelin, Dick Johnson)

1st	Marie Chabaud
2nd	Inez Logan
3rd	Eloise Dyer

Gadgets-(Rodney Johnson, Grace Marston)

1st	Richard Belli -	All-purpose knife
2nd	Jim Koontz -	Army Kit
3rd	Morgan Cuthbertson -	Batteries for razor

JULY 28. Oliver finally told us how we could each take home a limit of trout. The Bishop Trout Farm sells trout at 7¢ an inch - you don't even have to have a license to fish there!

The following were selected by vote to receive the coveted polished steel Sierra Club cups for their contributions to camp life, some of which might be considered "Acts of valor beyond the call of duty": Heinie Manheim, John Marston, Arnold Wall, Daisy Johnson, Irma Witte, Errol Smith, and Lois Claypool.

Heinie complained that he had nothing else to complain about.

Jim Koontz related the account of the first ascent of the unnamed peak to the left of Echo Lake which he and Norman Clyde accomplished. Norman used an ice ax to chop holes so they could cross the ice. When they came to a place near the top where there were neither hand nor foot holds, Norman used his ice ax to push Jim up the last pitch. By use of a rope Norman got up. They climbed the north face, and took a picture of each other sitting on top of the peak. Since they had not thought to bring a register along with them, they scratched their names on a Sierra Club cup and left it on top. Jim said it would probably turn up in Lost and Found. They rappelled down from the top. Then they slid down quite a way on the snow, usually managing to stay on their feet. Jim proposed to Oliver that the unnamed peak be given the name of a Confederate general, but Oliver didn't believe a Confederate General belonged in the Sierra.

Heinie announced that in the morning there would be a Red Cap in women's camp to carry in the dunnage.

There was some discussion of the location of next year's Sierra Club Base Camp trip and Lake Ediza was suggested. One day in from the packing station is one of the important requirements.

Oliver asked the following persons to speak of the various activities of the Sierra Club and they gave an interesting summary: Bob Thompson, Ned Thompson, Cliff Youngquist, Morgan Cuthbertson, and Dick Johnson.

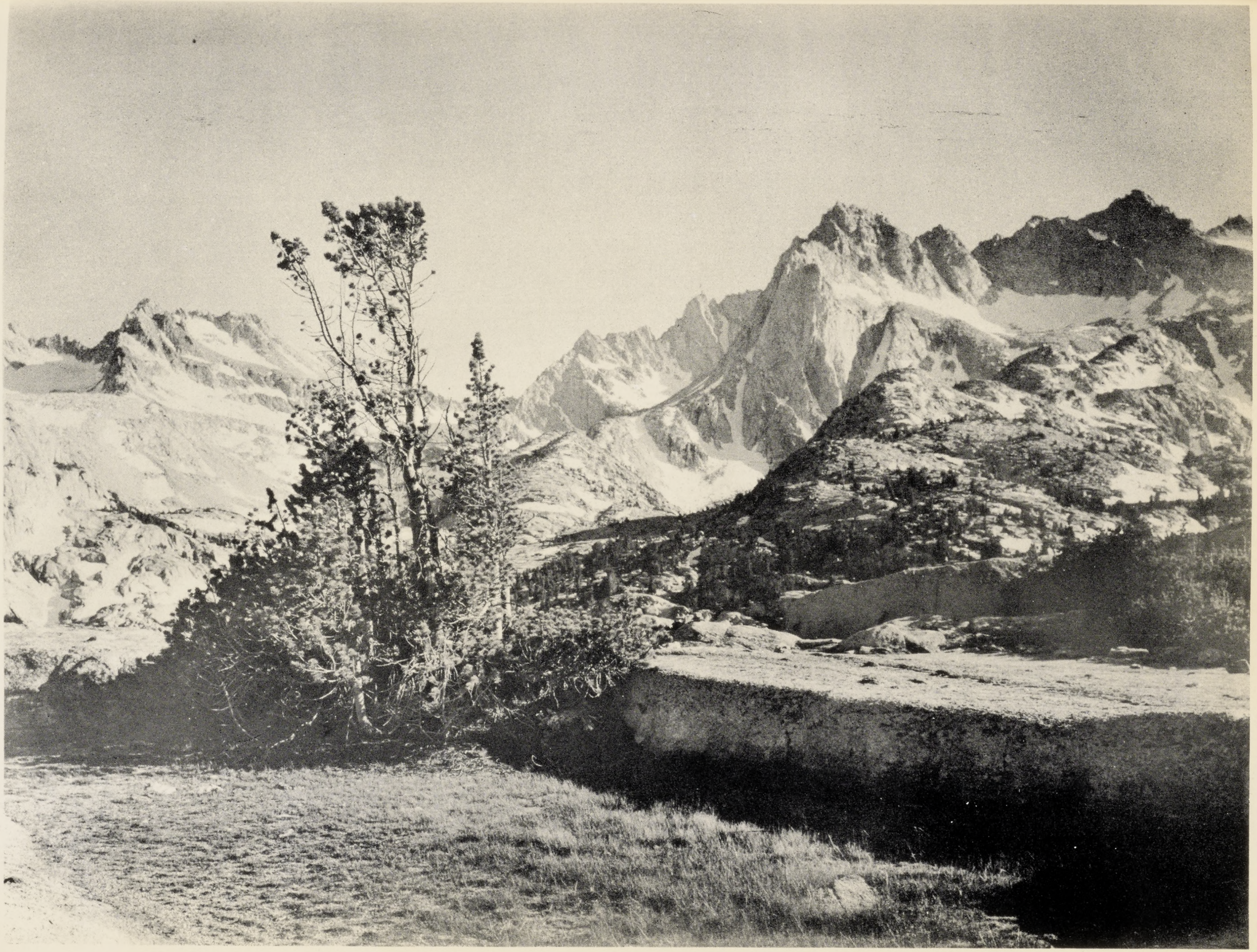
Gene Serr next explained the run-off experiment which is being conducted during this Base Camp at the snow survey point beyond Blue Heaven Lake.

Thus, on an educational note, the last of our campfire programs was brought to a close.

FISH REPORT (2nd Base Camp)

Ray L'Lesperance	85
Bob Wall	77
Marjory Tregea	57
Rollin Irons	55
Elmer Gates	51
Jim Perley	48
Dr. Ernest Rogers	36
Norman Clyde	30
Peter Friedrichsen	30
Rolf Godon	27
Madeline Irons	25
Dr. Harry Raab	25
David Utley	24
Jewel Denis	21
Louis Denis	21
Mary Sprott	19
Rodney Johnson	17
Maurice Saeta	14
Jim Utley	14
Howard Graham	13
Larry Lewin	13
Wilma Cline	12
Dick Johnson	12
Carrye Opton	12
Ada Gates	11
Robert Morrey	10
Cliff Youngquist	9
Earl Gilmore	8
Arthur Mayers	8
Ruth L'Esperance	6
Nancy McCabe	4
Edgar Frank	3
Pete Izett	3
Ned Thompson	3
Ralph Cline	2
Edris Smith	2
Errol Smith	2
Tina White	2
Sandra Cline	1
Heidi Hinshaw	1
Evelyn Houston	1
Morley Marston	1
Etta MacEwen	1
Allen McKee	1

Dr. Ernest Rogers caught the largest fish, fourteen and one-quarter inches long, in Moonlight lake.



SIERRA CREST

by James MacBride

Larry Lewin shoots good pictures and knows his stuff. His suggestions have helped many an amateur get better pictures. I know, his tips have improved mine. Ed.

YOU WILL GET BETTER PICTURES IF —

by Larry Lewin

Here are a few suggestions-nothing new or startling-but should get you better pictures on this trip. Photographers have used them for years to good advantage. Most of them are found in the instruction books that come with cameras, but few people ever read them as they are too anxious to get out and shoot. Even advanced amateurs and professionals forget them, so a repetition won't hurt.

You will get better pictures if you keep the horizon one-third from the top if the foreground of your landscape or scene is interesting, or one-third from the bottom, if the sky holds the most interest.

Don't place the principal object of interest in the center of the picture. One-third from either side makes for better composition. If you own a ground glass camera (reflex or graphic or view type), pencil in lines that divide the area into thirds both vertically and horizontally. If your principal subject--the eyes of a portrait, a tree, an animal, or a dominating peak is close to one of the intersections of the lines, your composition will be improved.

You will get better pictures by focusing sharply on subjects in the foreground. Distant objects will become sharper by using a smaller lens opening, the depth of focus of your lens taking care of the distance. If this isn't clear, do it anyway and when you get back to so-called civilization, drop into your camera dealer and ask him to demonstrate this on a camera with a ground glass.

If you shoot people or groups of people, move up close so that they fill the finder. Examine the samples in any photo finishing store, and notice how the little figures merge into a confused, meaningless background. With most cameras, you get a head-and-shoulders shot at five feet, a full-length figure at ten feet and at twenty feet a barely recognizable figure that is incidental to the rest of the scene. These are general rules; better check your own camera and set your own distances.

You will get better pictures if you include a human figure in every shot, even in landscapes, marines and buildings. You may not be able to identify the person, but it gives scale to the scene.

When possible use a tripod, particularly if you intend to make enlargements or project color slides on a screen. The slightest camera movement becomes evident when the image is greatly magnified. If you haven't a tripod, use a rock or other support.

Here are a few hints when taking movies. Get movement into your shots, even in landscapes. Shoot when the wind moves the foliage or the surface of water. Include flowing streams wherever possible. Moving water in cascades is interesting to watch. Lacking other movement, have some one walk into and out of the scene, but don't let them be conscious of the camera. Use a tripod or support whenever possible and especially when you "pan". "Pan" very slowly, starting with a steady shot and ending with one. Don't "pan" on nearby figures.

Wherever you can, take scenes in sequence—a long shot (which tells Where), a medium shot (which tells Who), and a close-up (which tells What). Tell your story that way. Take enough footage so that viewers have time to see everything. You can always cut over-long scenes, but can't stretch too-short ones. Try to have people doing something—not gawking at the camera.

This hint is not for the High Country, but on most trips, always include shots of road signs, depots or hotels to identify locations. They save titles and can be pictorial.

Here are some final hints for the trip home: Don't put your camera in the glove compartment of your car on long drives. Heat from the engine may affect the lens mountings—they're pretty delicate. Don't carry your camera on the shelf above the back seat of a sedan. The sun beating on it for several hours won't do it any good. Better still, put your whole outfit in a gadget bag and keep it in the shade as much as possible. Good Shooting and Happy Landings.

- * -

MUSIC: "Sextette from Lucia"

Oh what joy it is to camp by Dingleberry's icy waters
We bathe with joy, with joy we bathe, in Dingleberry's icy waters
In Dingleberry's icy waters.
Where we lose the skin we love to touch
And as we toil up the trail
Oh what joy it is, what joy, what joy it is.
Mornings they are colder than heck
And we swab out plates as we would a deck.
And the mosquitoes, the mosquitoes, Ouch! Ouch! Ouch! Ouch!
Oh what joy! Oh what joy! Oh what joy!
Ah, what a sorry sight we are, ah me!
Alas, we've watched our beauty fade,
But we'll regain our looks we swear! We Swear!!

CAST:

Marya Chamberlini	(Mary Chamberlain)
Sylvia Hermansoni	(Sylvia Hermanson)
Louisa Claypoola	(Lois Claypool)
Trulita Somervillo	(Gertrude Somerville)
Roberto Houstoni	(Robert Houston)
Carlos Goodoni	(Charley Gooding)

(Charles Gooding acknowledges his indebtedness to the late Emily House for her inspiration.)

- * -

Base Camp is one place where wild imaginations often combine with clever brains to build great peaks and mountains out of the merest molehills.

From some casual statement, long since forgotten, arose an imposing court trial, an astute sales campaign and a theme motif which ran on and on with success, even into the subsequent Base Camp Reunions. Ed.

THE FAMOUS DINGLEBERRY COURT TRIAL

By Charles Gooding

The suit of Florence Crane, plaintiff, vs. Neanderthal Estates and Dingleberry Highlands, defendants.

Maurice Saeta, presiding judge, Dingleberry Court

Florence Crane, attorney for the plaintiff

Charley Gooding, " " " defendants

Rocky Ainsworth, clerk of Dingleberry Court

The plaintiff sought to prevent the use of Bishop Creek, above Dingleberry commissary, for purposes of washing.

The court convened, the clerk donned his handle bar mustachios, and called to everyone to rise as Judge Saeta entered the courtroom. Midst much groaning everyone rose.

As her first witness Mrs. Crane called Dr. Ernest Rogers who testified that the use of the creek above commissary might make the water at commissary unfit for use. Mrs. Crane's second expert, Dean Curtis, failed to appear, probably because he was busily engaged in dreaming up some masterpiece of culinary art. Mrs. Crane sprang a surprise witness in the form of Cliff Youngquist, whom the defense had already arranged to present as the noted Swedish scientist and engineer. Mr. Youngquist proved a difficult witness for both the plaintiff and the defense.

The defense then presented as its first witness the Honorable Sing Far Lo, Minister of Public Health in some, or other, Chinese Government. Mr. Sing Far Lo was questioned in English which he understands perfectly, but because of his desire to make sure that his answers would be phrased exactly, testified in Chinese. Mr. James J. Perley acted as interpreter, but only succeeded in confusing the attorney for the defense.

The next witness was Miss Mary Galton who readily admitted that she was the best cook in the Northern Chapter of the Sierra Club and upon further questioning admitted that she had a very expert sense of taste. She was then asked to tell of her experience that day upon her visit to Neanderthal Estates. She told the members of the jury about the luxurious mansions at Neanderthal

Estates and the large investments therein which were imperilled by the possibility that the use of the water might be restricted beyond reason. She also said that she had made a scientific sampling taste of the water at commissary both before and after the men at Neanderthal Estates had used the creek and she had allowed a time of about 13½ minutes to elapse between the "before and after" taste tests.

She testified, under oath, that the water at commissary in the "after" test had a life to it, a "zing" that she found vitalizing, as against the flat taste "before". The defense then presented two jars of water which he prayed the court to admit as evidence. The jars were labelled "A" and "B". Miss Galton was then blindfolded and, after examination of the jars by the plaintiff's attorney, was asked if she could identify the difference between the water in the two jars. The "A" jar contained water taken from the creek at commissary after the residents of Neanderthal Estates and Dingleberry Highlands had used the creek and the "B" jar was the same water before it was so used.

The witness, Miss Galton, daintily sipped the water from the two jars, tasting carefully several times, yet without the slightest hesitation, though blindfolded, identified exhibit "A" as containing that vitality, that "zing" she had noted before.

Although the plaintiff's attorney searchingly cross-examined Miss Galton, the witness' testimony remained unshaken as to the zing the water had after use above commissary.

The next witness for the defense was Clark Richardson, M.D., who was qualified as an expert by his service in the army where his duties included the testing of waters to prevent harmful pollution. Dr. Richardson testified that army authorities regarded 100 yards as a safe distance in a stream such as Bishop Creek for the self-purification of water to prevent harmful pollution.

Mr. Oliver Kehrlein was the final witness for the defense and testified that Sierra Club practice considered a distance of 500 feet as protection against harmful pollution.

Judge Saeta then asked the attorneys for the plaintiff and the defense to make their pleas to the jury. After the plaintiff had made her plea the defense then asked the jury to decide once and for all whether or not they would rather see the residents of Neanderthal Estates and Dingleberry Highlands looking clean and happy or morose and dirty. He pleaded also that cleanliness was a right guaranteed under the U.S. Constitution, for the right to the pursuit of happiness necessarily involved cleanliness. "Next to Godliness cleanliness was the first requirement for happiness."

Judge Saeta then asked the jury "How say ye, members of the jury? Those holding for the plaintiff say aye." Then,"Those holding for the defendant say aye. The defendant wins."

Since it is quite evident that this UNbiased and IMpartial report of the trial was written by the attorney for the defense (at the request of the editorial board) he also freely avers and confesses that he too would like to know what the "fuss was all about, anyway?". In all the time he lived in Neanderthal Estates, opposite Dingleberry Highlands, he never saw anyone bathing or washing in the creek, either before or after the trial.

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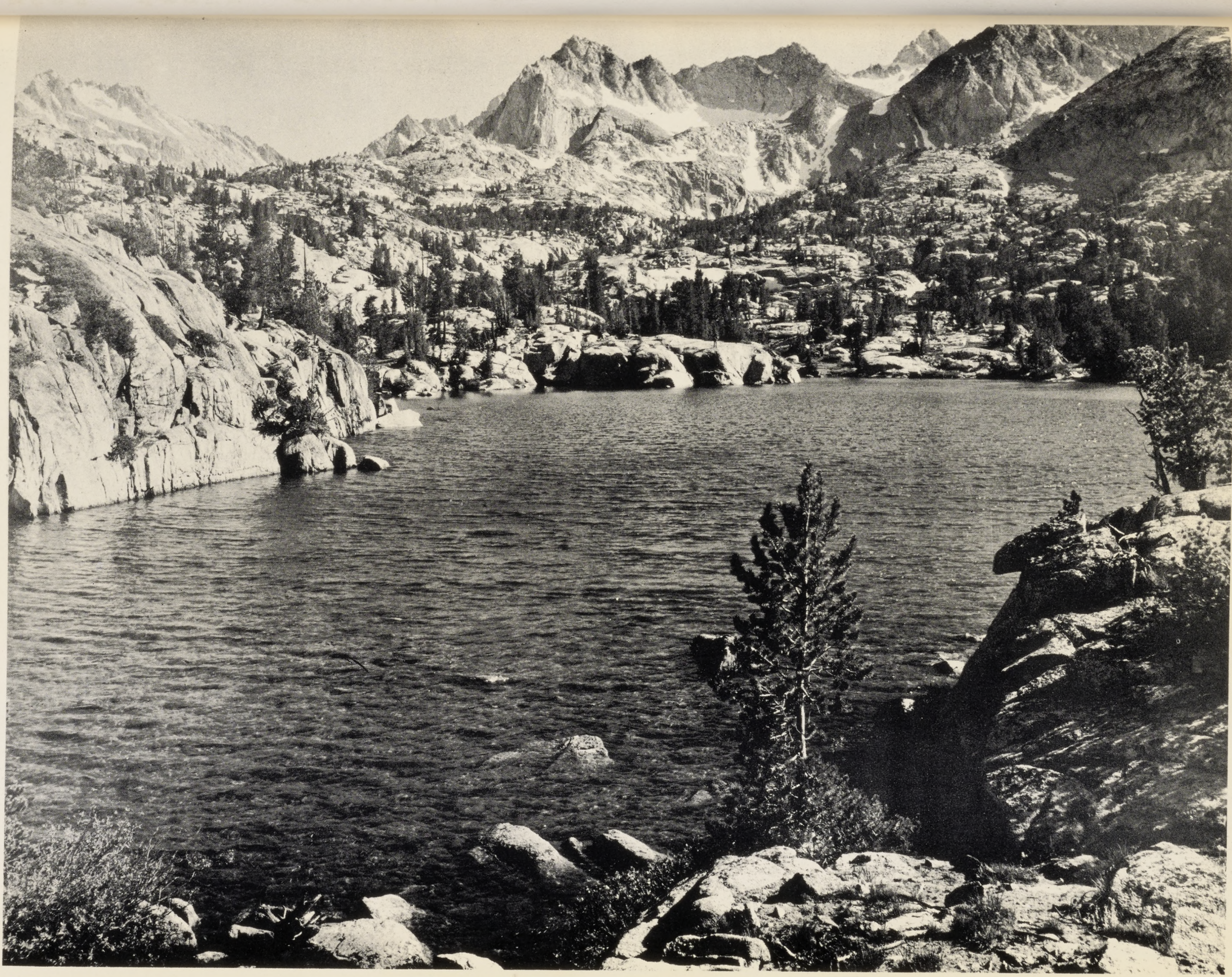


DINGLEBERRY LAKE from outlet by James MacBride

ZINGING COMMERCIALS

Tune: "Frere Jacque"
May be sung in 4 parts

Fellow Campers, fellow campers,
Have you tried, have you tried,
Dingleberry water, Dingleberry water
With zing, zing, zing-zing, zing, zing.

Anne Plummer

Tune: "Row, Row, Row Your Boat"

Fill, Fill, Fill your cup
With Dingleberry ZING
The more you drink
The less you think
And-the-more merrily you sing.

Lucy Hall
(Sung by Lois Claypool and the Walls)

Tune: "Mexicali Rose"

Dingleberry stock is rising
Shares are on the move both
night and day
Land is selling fast and
gents are smiling
For they know that they are
making hay.
Even if they get the pipe line
All the way from Zing to Mandalay
Dingleberry Zing would float them
to the shores of Emerald Lake

Nancy McCabe
(Sung ny Lois Claypool with harmonica
accompaniment by Marion Ray)

I am the garbage man's daughter
and I live down by the swill.
Sweet is the odor of garbage
But ZING is sweeter still.

Heinie Manheim
(Sung by Carol Smith)

It comes down Bishop Creek
A floating on the water
It brings the ZING you seek
It's good for son and daughter
It's jammed with vitamins
They're every shape and letter
It's good for ails of women
And men will sure feel better
A B C D Zing, Zing, Zing.

Inez Logan

Tune: "Hi Li! Hi Lo!"

We once were weary
and lonely and sad
Our hearts were unhappy
Our outlook was bad.
We came to Dingleberry Lake
Our troubles to forsake.

Hi li! Hi lo!
Hi li! Hi lo!
We sing of Dingleberry Zing water
Hi li! Hi lo!
Hi li! Hi lo!
One sip will give you a glow.

We now are full
of zip and Zing
Our hearts thrill with laughter
We shout and we sing
We leap all day
From peak to peak
Bright roses bloom in each cheek.

Gene Serr

Tune: "Jingle Bells"

When you're feeling out of sorts
  And the world's a total loss
That's the time that you should ring
  For a draught of Dingleberry Zing.

Chorus: Dingleberry, Dingleberry, Dingleberry Zing
  Oh what joy it is to sip
  That Dingleberry Zing.

It will lift you from the dumps
  Eradicate your pains and bumps
Make you feel that life's worth while
  So you can flash that gleaming smile.

Chorus:

Trudi Somerville

- * -

DINGLEBERRY ODE

Dingleberry Zing is just the thing
To eliminate that bathtub ring
And when on the line your washing sways
There'll be not a sign of tattle-tale grays.

You'll have no more B.O. nor foul halitosis
And, of course, not a sign of that ghastly gaposis
No more will you need to use lux on your undies
Since Zing's on the market, there'll be no more blue Mondays.

For a cigarette cough or a sick little tummy
One gargle of Zing and you'll feel gay and sunny
You'll find there's no problem, no job and no trick
That our Dingle Zing Water cannot quickly lick.

Trudi Somerville

- * -

SIERRA CLUB SAYINGS

If you don't know the date
  You have lost your mind.
Now that is something you never will find,
  For Oliver's bag will never contain
That elusive article, a Sierra Club brain.

Lucy Hall

- * -

ZING

DINGLEBERRY ZING THAT IS!

Office of the President

August 30, 1950

PROGRESS REPORT

Dear Stockholder:

As you can see from the combination of this progress report with the letter to prizewinners on the other side, your management is operating on a minimum expense basis. It's just a habit and is not forced by the financial condition of DINGLEBERRY ZING, INC. In fact, the income account and balance sheet of your company were never better than they are right now. In all modesty, you can truthfully say that the unparalleled record of your company is one of the wonders of the financial world.

Your Board of Directors, upon the suggestion of one of our socialite shareholders, Mr. Heinie Manheim, have decided to can ZING -- DINGLEBERRY ZING -- THAT IS, in square cans. He made the point that in square cans it could not be mistaken for any inferior product, such as beer, etc.

The numerous inquiries we have had about ZING -- DINGLEBERRY ZING -- THAT IS, indicate that it is rolling along mightily. Better stock up now before the winter freeze sets in. Imitators are trying to get into this promising (that's right) business, so be sure to say DINGLEBERRY ZING when you order. Customers tell us they love to say "DINGLEBERRY ZING, please", because it has such a charming lilt.

We are sure you will like the trademark design on this letterhead developed by that splendid artist, Mr. Peter Friedrichsen. We have registered it and will fight strenuously any attempt on the part of competitors to use the word ZING.

It has come to our attention that some wolves in brokers' clothing have been trying to get hold of these shares. Do not sell your shares in DINGLEBERRY ZING, INC. GROW RICH WITH DINGLEBERRY ZING. The noted seer, Fatima Crane, foresees this (if your life line is long enough).

Faithfully yours

DINGLEBERRY ZING, INC.

D. Z. Gooding

by: D. Z. Gooding, President

P.S. Heinie says "To make DINGLEBERRY ZING roll even faster you must think and speak 'ZING' all the day. When singing, if you don't know the words of the song, don't sing 'la la la' but 'ZING ZING ZING'".

ZING

DINGLEBERRY ZING THAT IS!

Office of the President August 30, 1950

Dear Prizewinner:

It is with great satisfaction that, at long last, we can hand you herewith the valuable, nay, invaluable, prize which your poetic zinging commercial has won for you. It is a genuine Mary Galton can opener, created especially for DINGLEBERRY ZING, INC. and is plated with the genuine D-Z solution.

Did you think that we had welshed on our promise(es)? No! No! DINGLEBERRY ZING, INC. will never go back on its word. The truth is that that most efficient and capable secretary of DINGLEBERRY ZING, INC., Miss Trudy Somerville (she has waited most patiently for her prize, too) lives in that strange and far country of San Francisco, and your president has had to struggle along without her help in managing the complex affairs of the company. These affairs, by the way, become more involved daily, and you know how much any president (the stuffed shirt!) really does without his secretary.

Now that you are home you will need this little device which at Base Camp, thanks to Dean Curtis, et al, is an obsolete tool. So please forgive us the delay.

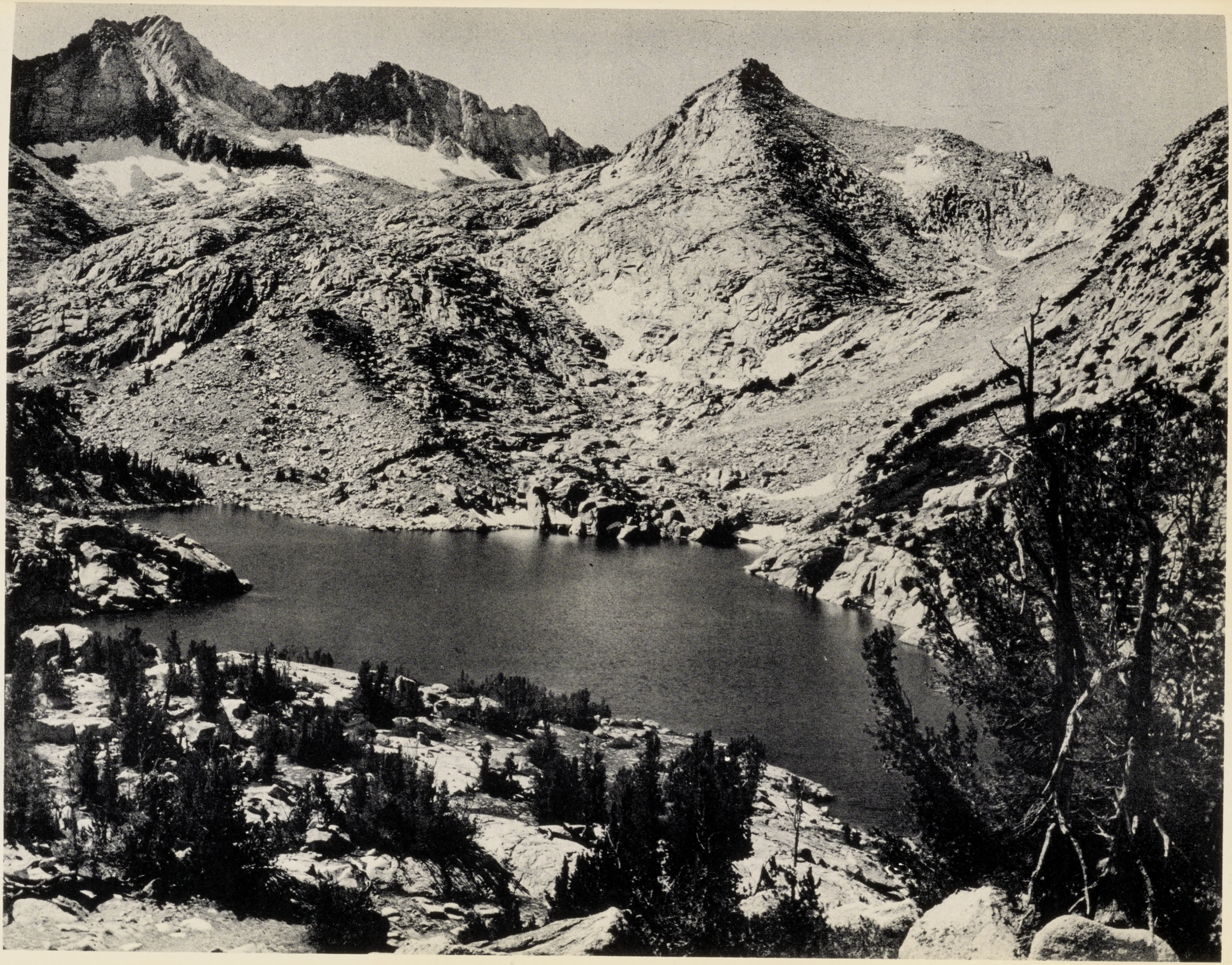
Be on the alert! Watch for future contests sponsored by DINGLEBERRY ZING, INC. You may win again. There will be sensational developments and we promise you that future prizes will be at least as valuable.

Zingingly yours

DINGLEBERRY ZING, INC.

D. Z. Gooding

By: D. Z. Gooding, President



BABOON LAKES. Mt. Thompson on skyline by James Mac Bride

AS THE PRESS SEES US

With permission of the Editorial Board of the Southern Sierran, we reproduce the following item from its valuable and widely read columns. From the September issue 1950: Ed.

" BASE CAMP

SOUTHERN CALIFORNIA CHAPTER WELL REPRESENTED

The first two weeks of Base Camp looked like "old home week" to the members of the Southern Chapter who were fortunate enough to be there. First of all, Dean and Marcella Curtis were the ones who selected the beautiful camp site on Dingleberry Lake, about seven miles from Lake Sabrina. Dean, Marcella and Ned Thompson dished up food that was really something to write home about. What pleased us all, too, was the quantity of food as well as the quality. Bob Thompson and Cliff Youngquist were Oliver Kehrlein's able assistants and very much in evidence. Almost every morning Pete Friedrichsen would start out with his band of willing helpers to cut down some "Old Pine Tree" (dead tree) for firewood for the stoves. The Southern Chapter was well represented at the lunch counter where Marion Jones and Erma Witte took charge. In the evenings Arnold Wall took over as master of ceremonies, turning out, what most people said, were the finest campfire programs the Base Camp ever had. Much of the talent Arnold presented was from down south.......there was Rocky Ainsworth's many jokes and fine coaching of the First Basers; the complaints by Heinie Manheim; Herb MacEwen's novel ukulele numbers; Maury Saeta and his imitations; Lucy Richardson's lovely hula; and Alice Caflisch's terrifying screams. Mary Galton's court testimony started the ZING in Charles 'Goodings' Dingleberry Zing, Inc., which drew laughs from the crowd almost every evening. Even the first Base Camp exchange student from Denmark was based in Southern California. Olga Arendrup was enjoying a stay in the High Sierras through the courtesy of Mrs. Anna Crowe.

There were many fine members from the northern chapters, too, and without them we would not have been the congenial group we were. Without them there would have been no beautiful camp fires such as John Marston built; without them we would not have had the youngest Base Camper on record--darling Heidi Hinshaw, and last but not least, we would not have had Oliver Kehrlein, and without Oliver--well, personally, I'd hate to think of Base Camp without our grand and beloved Oliver as our leader!

-- Ada Wall "

- * -

We are proud of our Junior Base Campers and extend our congratulations to them and their parents. They were well mannered, never self-assertive and always kept their place. Our thanks to the "Mothers" who organized the junior activities and by baby sitting permitted other parents, each in turn, to go on hikes and climbs. Ed.

JUNIOR'S SHOW

Produced by the Juniors
with the help of Margaret Smith and Kay Izett

Oh darling, darling Oliver,
I hope you're well today
Because I have some dreadful news
My cup has flown away.

Cho. Oh Mr. Kehrlein I'm sure it's not my fault
Because I left it right in sight
When I went to get the salt.

I had a dream the other night
When everything was still
I was on the burlap seat
And the climbers on the hill.

Cho. Oh Mr. Kehrlein, we have a real complaint
We've been sitting where we're told
Which is what you ain't!

We line up in a cheerful mood
Our gorceries for to eat
We're shoved and pushed and hustled so
We scarcely keep our feet.

Cho. Oh Mr. Thompson, Dean's food is superfine
But we will get ulcers sure
From rushing down that line!

We arrive in camp all out of breath
And longing for a rest
And Bab's right there to help us fix
A cozy little nest.

Cho. Oh Mr. Thompson, you're surely one swell scout
But if you don't slow down a bit
We'll be expedited out!.

I came to Dingleberry Lake
To catch some rainbow trout
Big Pete showed us where to fish
And how to pull them out.

Cho. Oh Mr. Friedrichsen, with all your good advice
I'm afraid you haven't told the fish
When they're supposed to rise.

Jim Koontz comes from Maryland
He is a Ph.D.
He leads the guys on glacial ice
And brings them back safely.

Cho. Oh mountain climbers we wish the best to you
With beetling cliffs and pinnacles
And peaks to climb up to.

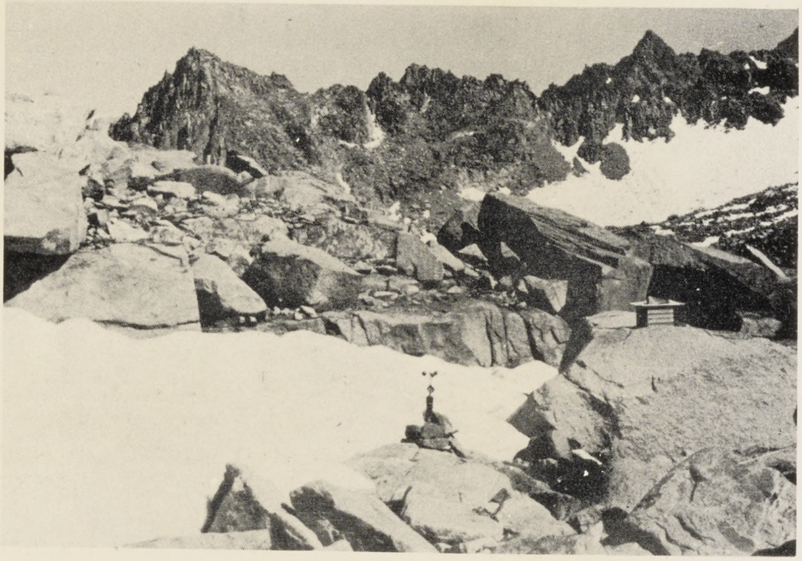
Oh Pete's the boss of chickie pail
And bosses with a will
He won't take any back talk from
The kids who carry swill.

Cho. Lois and Betty start us down the line
While Rickey, Franz and Morley
See that we make them shine.

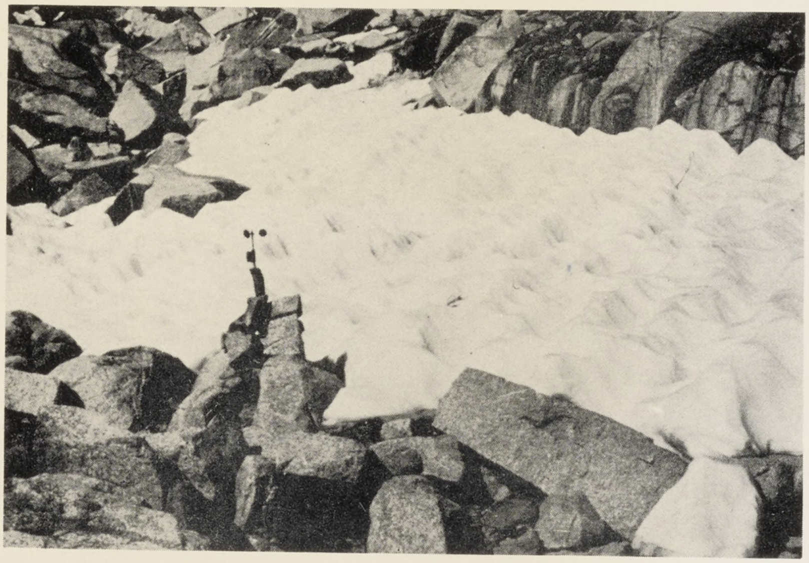
And still in sun or wind or rain
In camp or on the trail
No matter what we know we've got
A heart that cannot fail.

Cho. Oh High Sierra, back to you we'll come
With hearts so full of gratitude
We know we're coming home.

DARWIN SNOW STATION



View southeast across lower end ofsnow bank on July 18, 1950. Anemometer and thermograph in foreground. Mt. Darwin at rear of photographer, Mt. Wallace (13,328 ft) on right horizon.



View across widest section of snowbank on July 18, 1950. Anemometer in foreground. Sunpits measure from six to eighteen inches deep. Weirs off left-hand margin.

PROJECT RUNOFF

Scientific Studies Prove Old Theory Incorrect
Tests Assure Water From Higher Elevations

by Gene Serr II, Gene Serr III and Oliver Kehrlein

> Base Camp has undertaken many worthwhile projects in the past, but none of greater value to the State than this year's "PROJECT RUNOFF". These studies were anticipated during the preceding winter by numerous conferences. Equipment was secured and State and Public Utilities experts were consulted. Dean L.M.K. Boelter and and his engineering faculty at U.C.L.A. gave valuable service.
>
> All of this preparatory work culminated in the careful and conscientious efforts of the two Gene Serrs - father and son. Daily they climbed to the barren, rocky basin on Mt. Darwin. All thru the cold nights they deserted their warm bags to gather the following valuable data. In this work they were assisted by Jim Koontz, Fred Strauss of the State Department of Natural Resources and Tom Henderson of the California Nevada Power Company.
>
> These men have here established an important foundation for further work along this line. It is our hope that it be continued. Meanwhile the commendations of the Club membership and of the citizens of California go to the two Serrs for a job well done.
>
> Ed.

How much runoof is there from snowbanks above 12,000 feet? California hydro-electric power plants, farms and cities all need the water in that high snow. Francois Matthes, able U.S. Geological Survey engineer and recognized authority, thought that very little of the water in snow at high elevations actually runs off. His conclusion was that almost all of it above 12,000 feet changes directly into vapor and is of little value in supplying water to thirsty people, farms, and power plants below.

This summer a party of Base Campers undertook to measure the runoff from a small isolated snowbank at 12,200 feet elevation in the Middle Bishop Creek country. We sampled the bank at the beginning and end of a two-week period during which the runoff was being measured. The data secured from these measurements indicate that approximately 99 percent of the water content of the bank actually ran off as water. In a 24 hour snow block melting test at the same location we recovered about 97 percent of the water content of the weighed block as water runoff. These data are not in agreement with the idea of little runoff above 12,000 feet.

Also those of us who climbed Mt. Powell saw a sizable flow of water coming from the snowfield on the plateau at about 13,200 feet elevation near the summit. We estimated the stream at about 150 gallons per minute, or one-third cubic foot per second.

Since there is a considerable area in the Sierra between the 12,000 and 14,000 foot contours, it would be of interest and value to know how much actual runoff we are getting from these elevations. Also, we would like to know the critical elevation at which runoff ceases and evaporation takes off all of the water.

Our first plan had been to set up a small meteorological station at camp, but later decided to work on the more important runoff problem. Dick Leonard and the Outing Committee approved, and so the plans were laid during May and June.

We borrowed instruments from far and near, including thermograph, anemometer, snow sampler, sling psychrometer, thermometers, etc. They were packed into Dingleberry Lake when the first commissary group went in on July 1. During this week-end several of us started looking for suitable snowbanks to study. The plan was to find several small, isolated banks in independent impervious granite basins at an elevation of something over 12,000 feet, where we could place weirs to measure the runoff accurately.

The benches between Blue Heaven Lake and the notch in the shoulder of Mt. Darwin seemed the most promising part of the area. After much shovel work to examine basin floors, we selected two snowbanks up near the notch at an elevation of 12,200, according to Oliver's aneroid barometer and our airplane altimeter.

On July 11, Fred Strauss of the State Department of Natural Resources, came in, and with the help of Jim Koontz, back-packed cement, aluminum foil, and gear up to the snow station from Dingleberry. Notch weirs were installed below the best of the two banks previously located. Jim took a mountain tent and supplies and stayed overnight in order to record hourly readings for a 24 hour period. Daily readings were taken during the following week.

Between July 16 and August 2 we made a detailed study of the change in volume and area of the snowbank, coupled with securing of data daily on runoff, temperatures, air movement, barometric pressure, and relative humidity. This included two more 24 hour periods with hourly readings. Making those readings during the wee small hours of the night was frigid business up there near the glaciers.

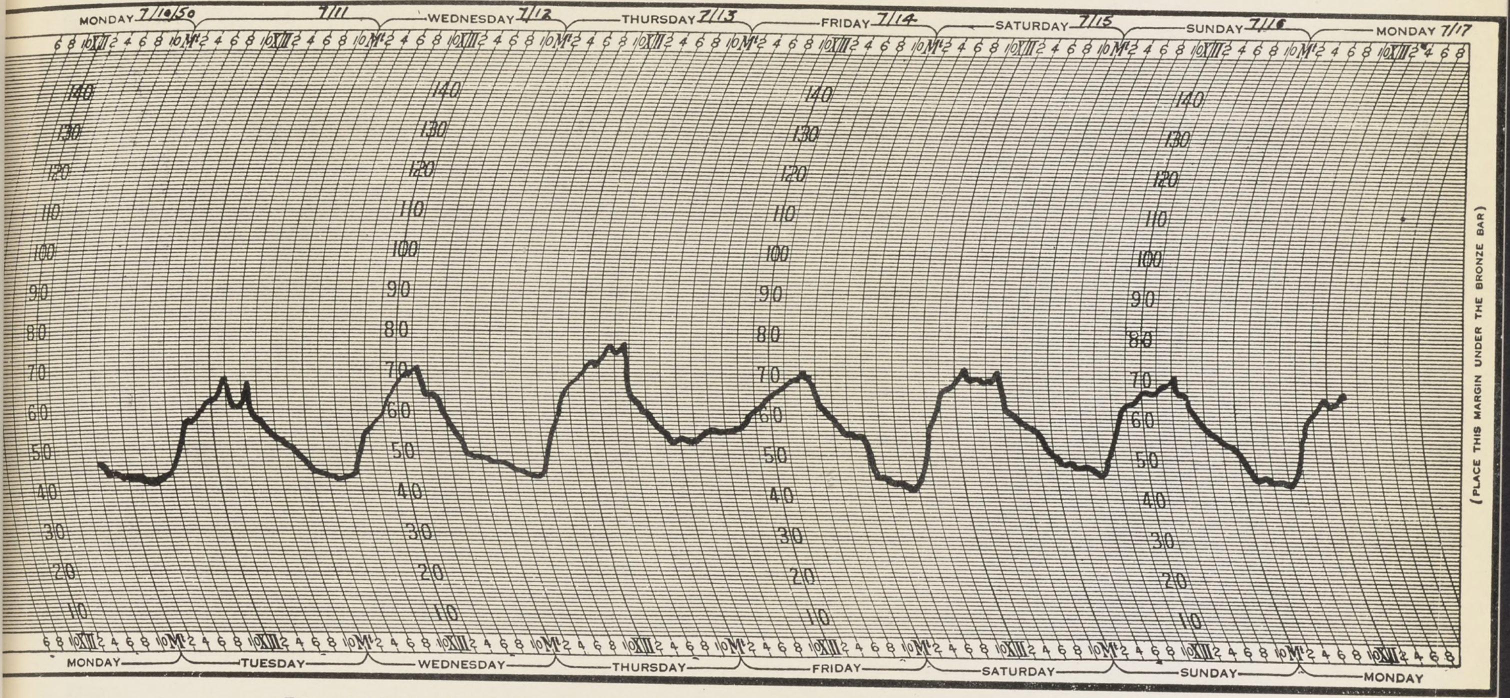
All together, 31 round trips were made from Dingleberry to the Darwin Shoulder Snow Station by those working on the project - about 310 man-miles of bracing air and wonderful scenery which we enjoyed tremendously! We also made snow block melting tests at Dingleberry (10,400 ft.) and at the snow station, and got some additional temperature, anemometer, humidity, and barometer records at Dingleberry.

Preliminary calculations indicate that the total measured runoff from the snowbank studied for the period July 12 to August 2 was 8,770 cubic feet of water. The daily flows decreased generally during the period from 1,040 cubic feet on July 12 to 85 cubic feet on August 2. The highest instantaneous rate of flow measured during the period was 1,980 cubic feet per day on July 12; the lowest was 60 cubic feet per day on July 31. Several observations of zero flow were recorded after August 2, but since none were made at the usual time of peak daily flow, they were disregarded.

The principal objective in the investigation is to determine the relative importance of evaporation and melting in the ablation of snow at this elevation. This involves determination of the total water content of the snowbank at the beginning and end of the period. The difference, minus the measured runoff, is the evaporation plus the unmeasured seepage, which has been limited to a negligible quantity through selection of the site.

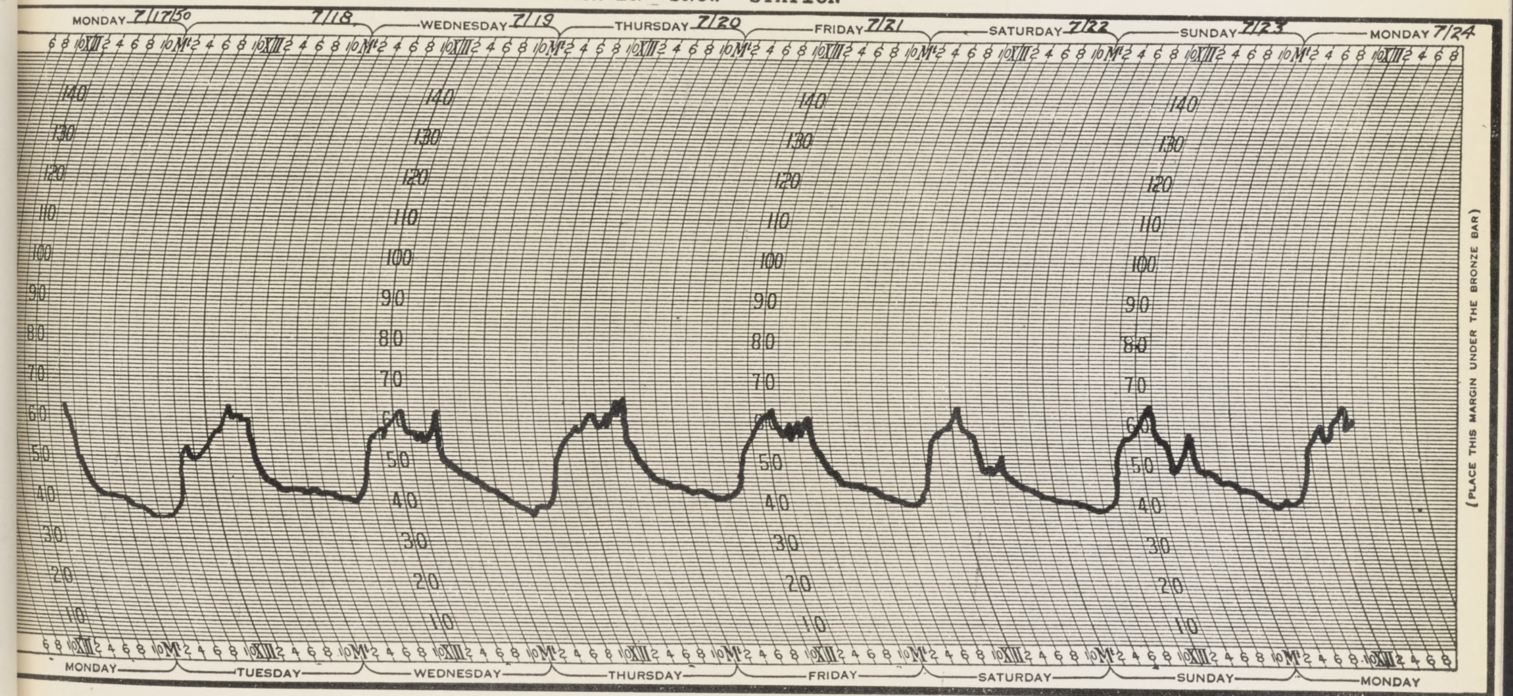
To compute the water content at the beginning and end of the test, we first mapped the snowbank on July 19 and, by planimeter, determined the area as 3,975 square feet. It was sampled at 36 points with a Mt. Rose snow sampling tube on the following day. From these data the water content has been calculated as 4784.2 cubic feet. On August 2 the bank was mapped again, having shrunk to 1,436

DINGLEBERRY LAKE



Temperature recordings at Dingleberry Lake (10,400 ft.), during the week of 7/10-16/50. The thermometer registered above 60° for, from 6 to 10 hours each day, with a high point of 70° at about 2 p.m. The low point of 42° was reached each morning at 4 a.m. The rises and falls were gradual, forming V shaped valleys and peaks, with a differential in daily temperature averaging 28°.

DARWIN SNOW STATION



During the week, 7/17-23/50, temperatures were recorded at the Snow Station (12,200 ft.) on the flanks of Mt. Darwin. The daily high temperatures were 8° lower than at Dingleberry. At night it was 7° colder. Both rises and falls were abrupt--steeper than at lower elevations, with longer hours of both warmth and cold. It is interesting to note the irregular record made during the warm period of the day, due to broken overcast, possibly as a result of seeding of the clouds.

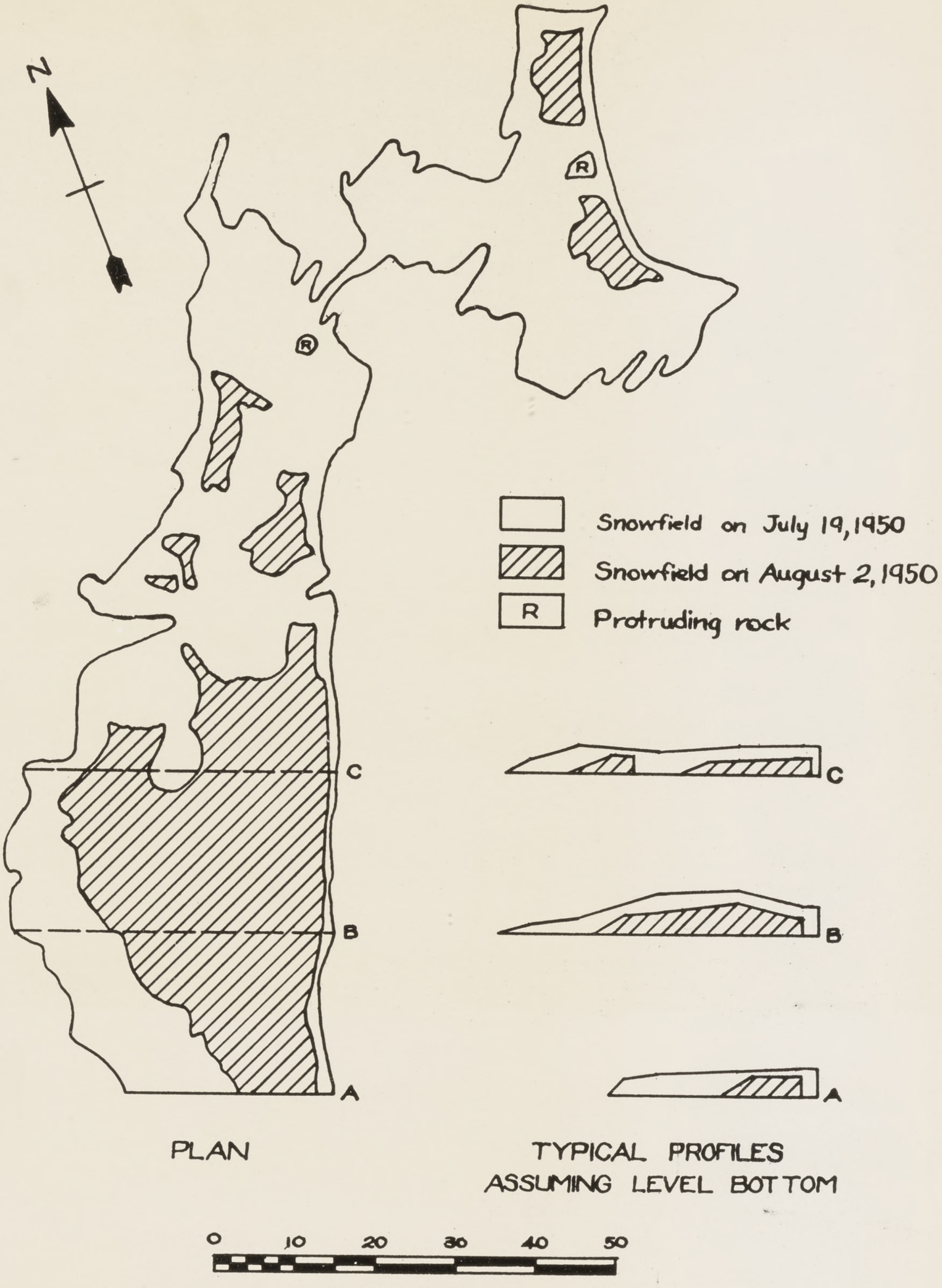


Fig. 1.-- Plan and typical profiles of Darwin Shoulder Snowfield at beginning and end of intensive investigation.

square feet, losing 64 percent of its area during the two week period. We sampled the bank at 19 points on the same day, and have calculated the total water content remaining as 1549.4 cubic feet. This shows a loss in water content of 3234.8 cubic feet. During the same 14 days the weir readings indicate a total runoff of 3210.0 cubic feet, or 99.2 percent of the total loss in water content of the snow bank.

These data are supported by a 24 hour snow block melting test made at the same location on August 1 - 2. A block approximately 16 inches square and seven and one-half inches thick was cut from the top of an adjacent snowbank. It was weighed and placed on an oilcloth covered frame, and the melt caught and measured at hourly intervals. The block lost 0.409 cubic feet of water during the 24 hours and 0.396 cubic feet of net runoff was collected. This was 97.3 percent of the total water loss of the block.

This seemingly varies radically with the Matthes theory of a relatively high percentage of evaporation over melt, as evidenced by runoff. However since these figures were obtained solely from runoff, they do reflect the effect of the variables-- temperature, wind, barometric pressures, relative humidity and dew point.

The data collected on these variables are now being tabulated and correlated When finished they may provide some clues as to the relation between elevation and ablation (evaporation and melting).

Meanwhile it must be recognized that since the above figures were obtained from runoff alone, they do not differentiate between the water derived from the melting snow and that deposited by condensation in the form of dew.

This condensation - or dew deposit - was surprisingly high at and above timberline during our stay this summer. As a result of high atmospheric humidity and low dew points, water was condensed in large quantities.

You will realize how much water actually condenses, if you will recall when at Base camp each morning you awoke and felt the thick coating of hoarfrost on your sleeping bag and saw it on the meadows near commissary. Physicists tell us that ten times more water is condensed than is given off by melting snow which causes the condensation.

The large amount of water flowing from the snow bank on the Eocene plateau of Mt. Powell can be accounted for as the result of this same condensation. Relative humidity was extremely high as clouds were settling about us all during our stay on the mountain.

There is still much figuring to be done, and this summer's work was just a beginning. Undoubtedly, methods can be improved, and more measurements are needed before accurate estimates of runoff at various high elevations can be made. However, it appears at this point that the snowfields of the Sierra above 12,000 feet are decidedly valuable as summer producers of runoff water.

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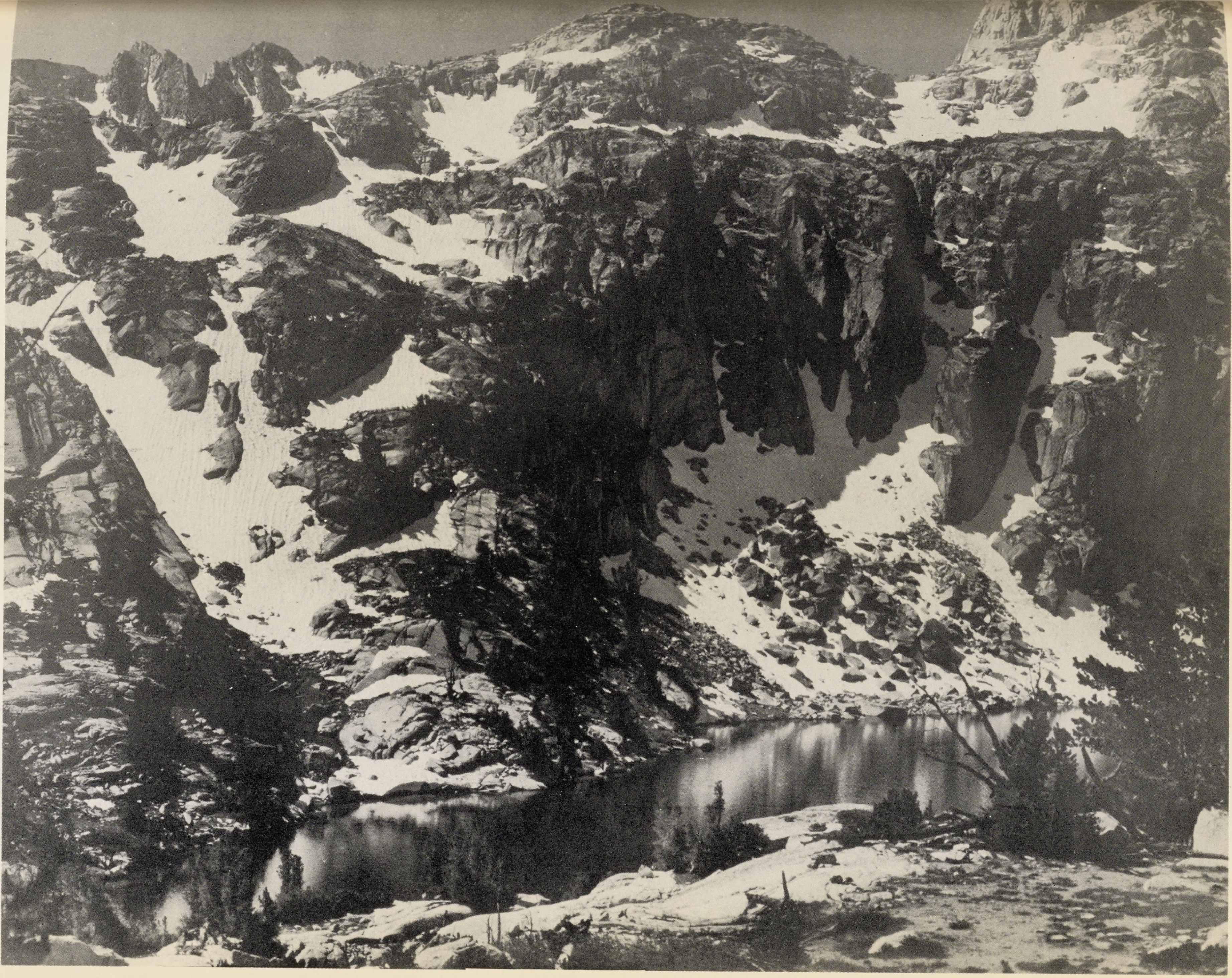

MIDNIGHT LAKE by James MacBride

SIERRA CLUB BASE CAMP #2
DINGLEBERRY LAKE
July 30 - August 12

Miriam C. Anderson	9150 1/2 Johnson Drive, La Mesa
Mrs. Wm. F. Bade	3525 Seventh Avenue, San Diego 3
Melza Ballentijn	15 Santa Paula Avenue, San Francisco
Lester Barron	113 Crystal Avenue, Balboa Island
Richard Barron	113 " " " "
Vera M. Barron	113 " " " "
Nancy Bordewich	846 California Street, San Francisco
Franz Borncamp	1211 Yocum Street, Pasadena 3
Frederick Borncamp	1211 " " "
Miriam A. Cole	3533 Mirasol Avenue, Oakland
Reno R. Cole	3533 " " "
Jane Collard	Rt. 1, Box 420, El Cajon, Calif.
E. R. Craig	429 Euclid Avenue, Oakland 10
Jeanette Craig	1066-10th Avenue, Sacramento 18
Esther Crites	51 Florence Street, San Francisco
Roy Crites	51 " " "
E. R. Danford	1000 Sutter Street, San Francisco 9
Alice Dayton	1080 Emerson Street, Palo Alto
Betty de Wolfe	International House, Berkeley 4.
Pauline Dietz	5855 Margarido Drive, Oakland 18
Eloise F. Dyer	General Delivery, Carmel
Fred N. Eaton	1271 E. Howard Street, Pasadena 6
Helen Eaton	1271 E. " " "
Margery Eaton	1271 E. " " "
Patricia Eaton	1271 E. " " "
Shirley Eaton	1271 E. " " "
Anita M. Fisher	408 Orange Street, Oakland 10
Ivy B. Foster	1229 "A" Street, San Diego 2
Fred Foulon	547 N. Sierra Bonita Avenue, Hollywood 36
Samuel W. French	74 Otis Street, San Francisco
Jack H. Froud	6136 Glen Tower, Hollywood 28
Jane M. Froud	6136 " " "
Eleanor Godon	Rt. 1, Box 501, Saratoga
Gerda Godon	Rt. 1, Box 501, Saratoga
Rolf Godon	Rt. 1, Box 501, Saratoga
Albert L. Gustus	1529 North Fuller Avenue, Los Angeles 46
Alice Schulz Hanson	803 E. Kensington Road, Los Angeles 26
H. Endicott Hanson	803 E. Kensington Road, Los Angeles 26
Gerrit Henstra	1338 N. Alexandria Avenue, Los Angeles 27
Heidi Henstra	1338 N. Alexandria Avenue, Los Angeles 27
Marianne Henstra	1338 N. Alexandria Avenue, Los Angeles 27
James A. Kain	3444 Beethoven Street, Venice
Ruth Kain	3444 Beethoven Street, Venice
Jim Koontz	Garrison Road, Owings Mills, Maryland
Barbara M. Lane	379 North Ridge Road, San Francisco 24
Ernest G. Lion	Winding Way, Ross, Calif.
Mrs. Ernest G. Lion	" " "
Garrett Lion	" " "
Richard Lion	" " "
Roger Lion	" " "
Inez Logan	2626 Benvenue Avenue, Berkeley 4.
Stella Lovering	3617 Crestmont Avenue, Los Angeles 26

Beth MacBride	3015 - 25th Avenue, San Francisco 16
James MacBride	3015 - 25th " "
Benjamin Makower	2665 Shasta Road, Berkeley 8
Rachel W. Makower	2665 " " "
H. H. Marquis	97 San Pablo Avenue, San Francisco 27
Mary Marquis	97 San Pablo Avenue, San Francisco
E. Grace Marston	613 Salvatierra Street, Stanford
John M. Marston	613 " " "
John Morley Marston	613 " " "
Benjamin C. Mason	2716 Medlow Avenue, Los Angeles 65
Robert Owen	309 Colusa Avenue, Berkeley
Jean Parker	1814 So. Wilton Place, Los Angeles 6.
Fernando Penalosa	677-45th Avenue, San Francisco 21
Pauline Praasterink	912-87th Street, Colma 25
Peter Raven	2108 California Street, San Francisco 15
Johanne Ringk	1318-11th Avenue, San Francisco
E. F. Serr, Jr.	50 College Park, Davis
Eugene F. Serr III	50 " " "
Nello W. Shelton	770 Summit Avenue, Mill Valley
Edwin J. Simon	30 Iris Avenue, San Francisco 18
Hazel Simon	30 Iris Avenue, San Francisco 18
Carol L. Smith	2332 - Hollyridge Drive, Hollywood 28
Errol Smith	1961 Jefferson Street, San Francisco
Helen H. Smith	1961 Jefferson Street, San Francisco
Margaret W. Smith	2332 Hollyridge Drive, Hollywood 28
Edith Stebbins	2530A Piedmont Avenue, Berkeley 4.
G. Ledyard Stebbins	2530A " " "
Marian Steineke	Rt. 2, Box 884, Los Altos
Maxine Steineke	Rt. 2, Box 884, " "
Leslie Toby	1517 - 48th Avenue, San Francisco
Dr. Mae Vonseeger	810 Catalina, Point Loma
Helen I. Wallace	200-38th Street, Manhattan Beach
William D. Wallace	200-38th Street, Manhattan Beach
Hazel T. Williams	120-7th Street, Manhattan Beach
Florence M. Youngberg	Ross, Calif.
Lynda Youngberg	Ross, Calif.

COMMISSARY GROUP

Barton Adams	2420 Benedict Canyon, Beverly Hills
Dean Curtis	10210 La Salle Avenue, Los Angeles 47
Peter Friedrichsen	805 E. 65th Street, Inglewood
Rolf Godon, Jr.	Box 501, Rt. 1, Saratoga
Oliver Kehrlein	71 Jordan Avenue, San Francisco 18
Enid Michael	2285 Cooley Place, Pasadena
Edward G. Thompson	6508 Dempsey Avenue, Van Nuys
Robert A. Thompson	814 Brent Avenue, South Pasadena
Dr. Pierre J. Walker	2202 W. 3rd Street, Los Angeles 5
R. Cliff Youngquist	2818 Effie Street, Los Angeles 26

SECOND GROUP by James MacBride

CAMPFIRE REPORTS
Second Base Camp
by Hazel Simon

Previous Base Campers well remember the clever way Hazel has of catching the highlights and overtones of camp activities as reported at campfire. They do not have to be sold the following reports — others will find refreshing enjoyment in her fascinating descriptions and pithy comments. Base campers, new and old, will be grateful to Hazel for her faithful recording of our many and varied daily doings.

Ed.

JULY 30, SUNDAY

CAMP FIRE!!! COME QUICKLY!!!

That copyrighted Base Camp shout brought together around the campfire the usual motley variety of clothes, ages and conditions. The hangovers from the first two weeks stood around looking fit, dirty and unwearied, while the newcomers carefully nursed their creaking mountain muscles down onto the boulders around the fire.

After poetic contributions from Inez Logan and Fritz Borncamp to set a proper tone for the meeting, the campfire got down to the business of introductions, organizing trips and explaining work details and mountain manners. Short dissertations on "The Standardization of the Billy-can," and "Possible Adaptations of the Plumber's Friend" by Bob Thompson, introduced First Basemen to both Bob and the Billy-can — institutions essential to the operation of any well-ordered Base Camp. Also introduced was Pete Friedrichsen, whom the First Basemen shortly got to know very much better.

All eyes focussed speculatively on Ned Thompson when he was introduced as the cook, wondering if the first dinner was lucky, or if he always cooked like that. (He always did.) An explanation of the workings of commissary and of the work details, and a general briefing on the terrain, trails and proposed trips finished the business of the first campfire. Monday was announced as a camp day, for planning trips, moving tents and general settling in, with special meetings for first Basemen, Grandmothers, Maiden Aunts and Ph. D.'s, and also for parents and naturalists.

Commissary then produced that wonderful miracle, the pot of hot chocolate, and the first campfire was over. We could get up and massage our granite paralysis and betake ourselves to our sleeping bags.

JULY 31, MONDAY

The Lost and Found Department (i.e., Oliver's baggy-backed coat) was taken over by Jack Froundd What he __found__ was that Ben Mason and Maxine Steineke needed teeth. Of course, Maxine needed them for her comb, and Ben needed a spare set in case of crows,* but that was only a minor difference. What Jack had __lost__ he never made quite clear.

Breakfast was set for 7-7:30 (groans) and Roy Crites announced the organization of a horseshoe tournament. The trip plans were announced, with the Grannies and M.A.'s scheduled for Grandma's Nubbin, and the Ph.D.'s for Haeckel on

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*Ben retrieved his one and only set from a thieving crow, last year. Ed.

Tuesday, probably in the rain, as a cold front was reported on its way in.

After fish-count the meeting was turned over to Master of Ceremonies Les Toby (not to be confused with the ex-convict of the same name, or with Les Barron) who introduced Ivy Foster. Ivy played and sang "The Fox," "No Woodfire" and Schubert's "The Trout." The program then went nautical with Al Gustus staging a one man skit called the "Light-house Keeper" and Led Stebbins singing "The Keeper of the Eddystone Light." We all swam back to shore then and heard Oliver's talk on the origin of the place names of the vicinity. Most of the lakes were named by Art Schober and his brother. The descriptive names are easy to account for — Emerald, Blue, Moonlight, Midnight, Blue Heaven, Bottleneck and others. A little explanation is necessary to account for Topsy Turvy, which is alleged to look tilted from certain viewpoints, and Drunken Sailor, so called because someone thought it staggered around the meadow and meandered aimlessly like a drunken sailor. Sabrina is supposed to have been named for the wife of a power company superintendent, and Baboon Lakes got their name from the disgusted remarks of packer about the CCC boys who were incapacipated by sunburn. The CCC was indirectly responsible for naming Burro Lake, also, because one of their burros fell in it. Pee Wee Pothole was christened by Art Schober, and there is no truth in the rumor that it is to be renamed Miniature Burlap.

The Evolution Valley and Basin and the Evolution group of peaks (Lamarck, Darwin, Haeckel, Wallace, Huxley, Fiske and Spencer) were named by Theodore Solomon, a Hearst reporter with a flair for fancy names. Mt. Powell was named for the USGS engineer who succeeded King.

AUGUST 1, TUESDAY

Lost and Found was turned over to the tender mercies of Cliff Youngquist, who disposed of it in Swedish dialect. (This was dialect year. Lost and Found later spent a week with the Scotch.) Enid Michael reported on an expedition which she and Marian Ray made to Schober's Holes, through rain, snow, and hail. Interesting flora and terrain took second and third places among their findings; their most satisfying discovery was Pete Friedrichsen already ensconced there with tea water boiling.

The Grandma's Nubbin Grand Tour was also caught in the rain and hail - to the dispair of photographers who stood frustrated on the top glaring at grey clouds and flat light while the hailstones bounced off their lenses and raincoats (if they weren't the trusting ones who left their raincoats andtheir knapsacks below, that is). No one was inclined to linger on top, so there was a scramble down to knapsacks and lunch at the outlet of Bottleneck Lake. During lunch the party got a preview of the problems of ledge-hopping by watching the three hikers who were scrambling and backtracking, trying to find ledges which didn't dead end on them.

Amphibious Maiden Aunts left for Schober's Holes after lunch, but the majority let the weather discourage them, and ambled back to camp via the Men's Bath Tub. Among the ambitious who went on to Schober's Holes were Led Stebbins and Peter Raven who returned triumphant with previously unreported plants. All who went to Schober's Holes reported a handsome view, when the clouds parted enough for it to be seen.

Jim Koontz told us that the PH.D.'s, led by Norman Clyde, weren't exempt from weather troubles either. After a climb over talus and snow above Echo Lake, they ran into snow and rain on the other side of the ridge, and had to hurry back down. They made a second ascent of an unnamed peak on the shoulder of Haeckel.

The San Diego Knapsackers, whom the Grannies had seen earlier scrambling along the ledges below Schober's Holes, had been invited to join Base Camp for the evening. They introduced themselves as Dave Holcomb, Joel and Leon Hidde, and gave us a quick resume of their trip, which had started at North Lake. They traveled over Piute Pass into Hutchinson's Meadow, Evolution Valley, Through Colby Meadows and Darwin Canyon, and thence were returning to Bishop via Sabrina Lake. This rugged itinerary covered their first knapsacking trip, and they had learned several things about knapsacking the hard way, becoming confirmed mountain lovers while they were doing it, however. The singers who lingered around the campfire after the chat and chocolate found out that Les Toby had missed a good bet by failing to sign them up to play a harmonica concert for the campfire. They turned out a fancy duet version of Ravel's Bolero, among less erudite works.

AUGUST 2, WEDNESDAY

Daytime Views about Camp:

The glacially ignorant absorbing knowledge osmotically from the polished roche moutonnee they sat on while listening to Oliver explain the glacial evidencs visible all around the walls and floor of the valley.

Innumerable buckets of laundry (how could there be so much so soon?) followed by innumerable tea parties and fish fries.

Great coils and snarls of cordage during the knot-tying session. Also four different ways to tie bowline and butterfly, all good, but not for mixing. Anguished cries from the rock climbers when somebody stepped on a rope.

Rock climbing of all kinds all over camp -- from the abc's of belaying to the advanced techniques of using pitons.

Marian and Maxine climbing the "unclimbable" crack, cheered on by a gallery of horseshoe pitchers, social climbers, and chagrined male climbers.

Edie Stebbins discovering that she was a chip off the old rock, ready to follow in the steps of Maxine and Marian.

Amiable "barley sacks" Rolf Godon, Jr., and Morley Marston being alternately dropped or jerked up short by amateur belayers. Oliver "talking" people over the edge of a twenty foot cliff for their first rappel down; the glee of embryo Ph.D.'s who suddenly discovered that rappelling down was fun.

* * * *

At campfire we welcomed latecomers Dr. and Mrs. Mark Marquis and heard reports on the day's activities. Enid Michael reported that the nature walkers had been rewarded by finding a golden tiger-lilly and some grass of Parnassus. Plans for Thursday had trips scattered all over the valley and mountains -- the Ph.D.'s to climb Wallace and Haeckel, the Aunts and Grannies to go to Baboon and Thompson Lakes, and the Aunts to go on over the Eocene plateau and back to camp via Moonlight Lake. Another group of M.A.'s was to climb Photographers peak in the morning and join the group on the Eocene plateau.

Fish count concluded the business, and Les Toby took over with a program of ballads by Led Stebbins, dialect stories by Cliff Youngquist, and a skit on the problems of Ph.D.'s done by Edie Stebbins, Maxine and Marian Steineke and Alice Dayton. The principal problem seemed to be keeping "seated."*

Art Grannatt, Safety Engineer for Los Angeles Bureau of Water and Power, gave a description of the operations of the Bureau in the Owens Valley. Art gave an enlightening talk on "Rattlesnakes and What to do about Them."

AUGUST 3, THURSDAY

Campfire was a small and subdued group of people, with Les Barron standing in for Les Toby, who was with the stretcher party bringing in Pauline Praasterink.

All other business was postponed to make way for a very serious matter, the trial of Nancy Bordewich on charges of usurping the privileges of a leader by wearing a feather in her hat. Judges were Bob Owen, Beth McBride and Roy Crites, and the Prosecuting Attorney was Les Barron. The occasion was judged so serious that Bob Thompson sanctioned the use of Commissary apple boxes for the judges' Bench. (Only time anybody ever got to sit on them.) Fred Foulon spoke during the trial as a friend of the court.

A great deal of confusion was caused in the Court by the able but unscheduled Defense Attorney, Bob Thompson, who took pity on Nancy's bewilderment in the face of an obviously rigged prosecution. I have on the best authority (to wit, direct from the judges) that the case was to be railroaded without chance for defense, and that even the punishment was settled upon in advance. This subversive procedure was thwarted by the timely actions of Attorneys Thompson and Foulon, and the defendant was acquitted. In fact, the case was thrown out of court and the attorney for the Defense confiscated the Bench!

Following this rout of the unrighteous, the Ph.D.'s reported successful ascents of Wallace and Haeckel, with the party roping down ice slopes on Haeckle, but finding very little rock climbing necessary.

After a short community sing, a distinguished visitor from the Middle East appeared in camp, preceded by the beautiful harem slave who interpreted for him. Both were costumed in elegant flowing Arabian robes, and moved with ineffable dignity to the throne prepared. A great deal of palaver, consultation and yak-yak was eventually translated -- His Majesty wished to know where was the Men's Burlap.

These two skits were ad libbed right off the cuff by Les Barron and his collaborators. It would have been a swell performance any time, and under the circumstances should have gotten at least a Pulitzer Prize.

Campfire broke up with the request that everybody go off to bed, leaving the area clear so the nurses could work unhampered.

AUGUST 4, FRIDAY

Oliver announced at campfire that Pauline had arrived safely in the Northern Inyo Hospital at Bishop, and that he would report any further news as soon as he received it. There had been a quiet day in camp, with few activities to report except laundry, and sleep for the men who had been out most of the night. The fish count revealed that Nancy had been consoled for her trials by catching four fish — her first for the trip.

Maxine and Marian and Alice didn't report it, but they spent most of their morning on the woodpile, doubling for First Basemen who needed sleep.

Trips to Hungry Packer and Midnight Lakes were announced for Saturday, and the program proceeded with the Al Gustus Company of Junior Geniuses presenting "Down by the Old Mill Stream." Ledyard Stebbins gave a talk on the adaptation of plants to their environments. He also announced a botanizing knapsack trip to Coyote Ridge, to leave camp Saturday evening and return Monday evening.

AUGUST 5, SATURDAY

The pride of bonnie Scotland took over the Lost and Found this night, and there was a notable increase in the quantity and quality of forfeits, due to Jim McBride's Scotch reluctance to part with anything once in hand. After Jim finished extracting the uttermost farthing possible, Oliver read a note from Art Grannatt, which said Pauline's condition was good.

Grandmas and M.A.'s reported on trips to Hungry Packer Lake and points north and south. After lunching at Hungry Packer, one party of Maiden Aunts took off over the northwest ridge to Midnight Lake with Led Stebbins. Another party followed Mark Marquis over the ridge south to Echo Lake. Led found a rare and interesting Saxifrage, and the Marquis party found a lake above Echo which they said was the most beautiful of all.

The Grannies, on the other hand, stayed comfortably at Hungry Packer, enjoying the sunshine, the photogenic lake, and the wonderful flower gardens. they also enjoyed the consternation of the party of fishermen who thought that Hungry Packer was their private domain and were completely dumbfounded to find it so populous. (From the stack of tin cans, they must have been there several times before.)

Campfire closed with Lois Claypool playing "Londonderry Air" on her flute, accompanied by Ivy Foster; and Gene Serr, Jr. sang "I Love a Lassie." (You can't escape the Scotch.

AUGUST 6, SUNDAY

A quiet campfire for Sunday evening, with Oliver giving us the welcome news that the second medical casualty, Mary Marquis, was also safe in the hospital. Maxine Steineke gave a belated account of the Ph.D. climb of Mt. Darwin on Saturday, which landed the Ph.D.'s at the head of the Commissary Blacklist, for getting in long after their meals had burnt to a crisp in the oven. The ascent had been uneventful, but the distance much longer and the rock work tougher than they had anticipated, so that they were unable to get back to camp on time.

The social climbers all had a fine time with a general picnic and tea party at Pee Wee Pothole. Commissary outdid itself with cookies and ice cream, and everybody devoted the afternoon to eating, digesting and loafing, with some brash and energetic individuals swimming, fishing and taking pictures.

Trips to Powell Glacier and to Midnight and Blue Heaven Lakes were announced for Monday and Wednesday, and campfire closed with a talk by Bob Thompson.

AUGUST 7, MONDAY

Grandmothers, M.A.'s and Ph.D.'s returned from the Powell Glacier climb with many and varied stories. The M.A.'s avoided joining the Ph.D.'s on the Commissary Blacklist only by the skin of their teeth. By doing a free-wheeling, no-holds-barred descent over glacier, snow, rock and air, they managed to get back into camp before dinner was put away -- good and hungry, too. The Grandmother party had left the glacier earlier, and returned at a more sedate pace, taking time out to stage glissade contests on the way down. Marianne Henstra was awarded the palm for a record glissade (standing) while Ivy Foster was awarded the prize (a hot brick, maybe?) for sitz-glissading. The M.A.'s hadn't had time to measure for distance awards, but put in a claim for all prizes in free-style sitzing.

Following the reports of trips, the Eagle Club, directed by Helen Eaton, presented a drama of the great outdoors, entitled "Pokey-Huntus." (The cast is listed on another page.) The reverent hush following this spectacle was broken by the astounding dance team of Lenore and Les (Barron, not Toby) DeMarco, doing an exhibition waltz. That put the campfire out for the night.

AUGUST 8, TUESDAY

Fish count tonight showed that camp days gladden the hearts of fishermen, too, with the best luck reported from Fish Gut Lake. The Ph.D.'s had left immediately after dinner on their way to Darwin again, planning to bivouac for the night at the snow camp set up by Gene Serr, Sr. Trips to Blue Heaven Lake and Darwin Notch were scheduled for Wednesday, and the traditional Bandana Show for Thursday at 2:30 in Neanderthal Heights. There being no trips to report, the program was turned over to Les, who introduced the Tyrolean Yodelling and Chowder Society, singing favorite German songs, and the Don't-Chew-Gum Repertory Theatre. These highly artistic endeavors being completed, the campfire ended with Stella Lovering's reminiscences of her South American travels.

AUGUST 9, WEDNESDAY

To everyone's amazement, Mark Marquis reappeared in camp, Mary having insisted on his returning to what was left of his vacation while she convalesced from her appendectomy in the hospital at Bishop. Dr. Marquis reported both Sierra Club patients doing well, and that they were fortunate in having exceptionally fine medical and hospital care in Bishop.

The Ph.D.'s were back in plenty of time for dinner this evening, by virtue of the bivouac at the snow station. Nobody seemed to claim any other virtues for it, however, judging from the mutterings about rocks in their beds, cold wind, and other evils. The ascent took five and three-quarters hours from the bivouac, eight hours from Base Camp, and was a second ascent of the route on the north face for Jim Koontz having previously climbed it Saturday.

Grannies reported a snappy wind and a scarcity of tea-fire wood at Blue Heaven Lake, where they lunched but didn't linger. The M.A.'s went on from Blue Heaven to Darwin Notch, to glimpse Darwin Glacier and Lakes, and to help dismantle the snow camp and bring back the snow measuring equipment.

The evening's entertainment was vocal, with a repeat performance of the Tyrolean Yodelling and Chowder Society, the Commissary Quartet, and the Pinus Albicaulis Trio. Lacking a duet, the program continued with a solo rendition of Abdul the Bulbul Emir" by Led Stebbins. The Chocolate-pot Chorus continued to sing long after the campfire was officially over.*

* Somewhere about this time we had some very fine musical selections by Hazel Simon. Modest Hazel fails to note the selections and the enthusiastic applause. Ed.

AUGUST 10, THURSDAY

Camp day - THE day — for the Bandana Show and the First Base Follies, and for the finals in the horseshoe tournament. Roy Crites won the men championship easily, but the ladies' championship was hotly contested by Marianne Henstra and Lois Claypool. Marianne finally took it, to the everlasting woe of Lois's commissary rooting section.

After announcements and fish count, the campfire was turned over to First Baseman Les Barron and his henchmen, who chased Tradition clear out of camp and well on toward Sabrina Lake. (See text of "Down with Tradition" elsewhere in this book.)

AUGUST 11, FRIDAY

Only two official trips were scheduled and reported, the two climbs of Powell, led by Jim Koontz and Led Stebbins. Jim led a party over Powell Glacier and up the cliff above the glacier where they found third and fourth class rock climbing. The Stebbins party took a longer route, reaching the summit at one o'clock.

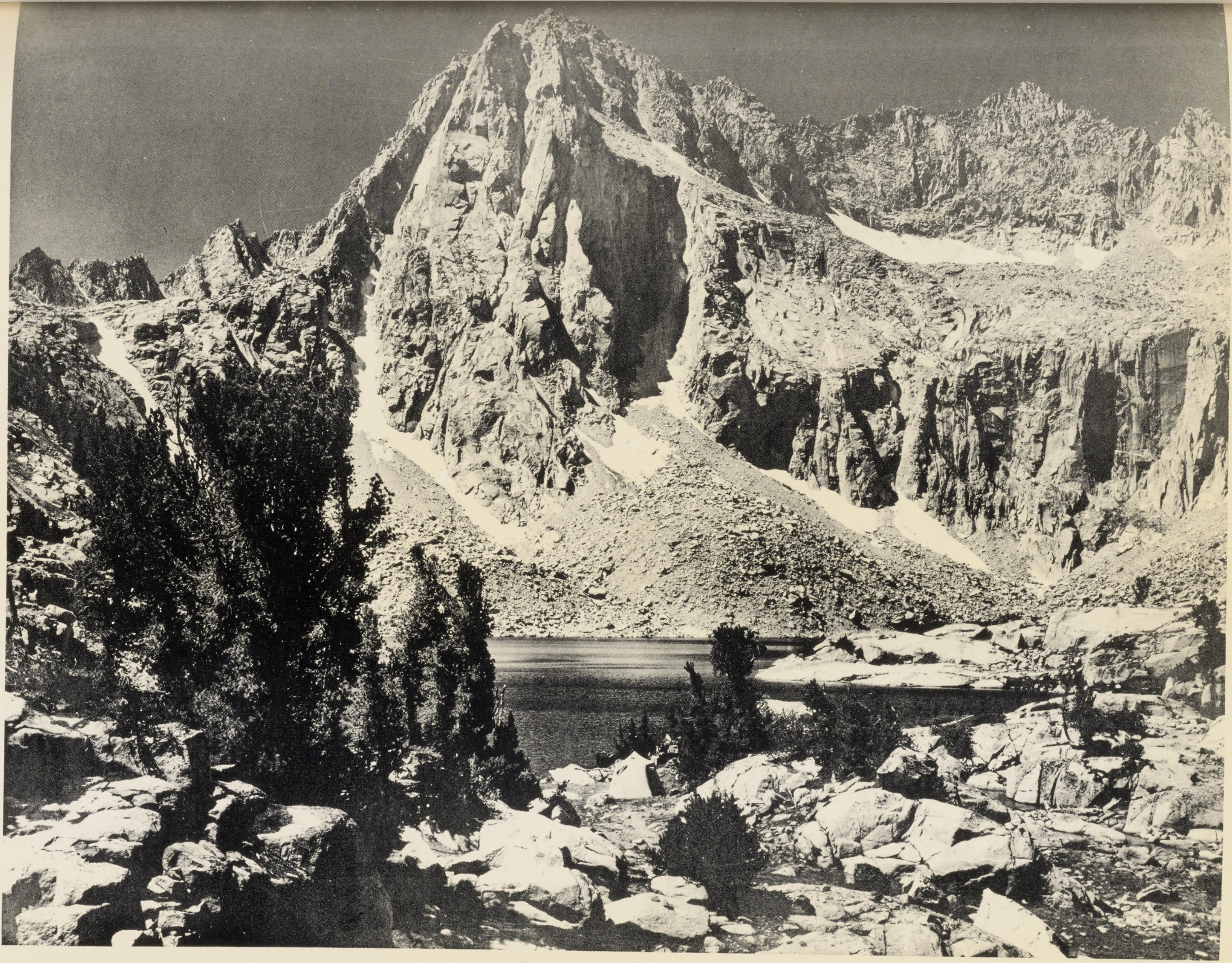
After the necessary arrangements and announcements incident to breaking up camp, Bob Thompson and others spoke about the underlying reasons for Base Camp and the other Sierra Club trips. Oliver at last consented to divulge his infallible recipe for catching a limit of trout to take home, and the last campfire burned down to embers.

Base Camp was over. Where do we go next year?

—**—

Down the Dingleberry brook
I went strolling with my hook..
The fishes lured me from pool to pool
along the shady shore.
I followed them; Oh what a fool!
The trouts all happy felt
I got none for the count,
But missed a cup hooked on my belt.
I thank you, Lost and Found.

— Carrye Opton



HUNGRY PACKER LAKE

by James MacBride

Some FIRST BASEMEN come to "Scoff and then remain to pray." They make the best conservationists - for they realize the sham in the sophisticated veneer we all wear in civilized life. Les, the discriminating analyst picks us apart and here pokes fun at our foibles. May we take heed.

Ed.

GRANDMA AT DINGLEBERRY

by Les Barron

When you're pushing the tender age of 39 and make your first trip into the Sierra, you must offer an explanation. Mine is simple.. I married a gal who once climbed Darwin and just couldn't find peace and contentment in the Appalachians after that.

Of all the stories she told, the one that stood out was the ritual of tea making. It was hard for me to understand the breed of tough and rough out-door folks who would take time off along the trail to brew a cup of tea. I was sure that as they drank, everyone had their little finger out.

So you see I was prepared to meet a bunch of CHARACTERS. I soon found out that this was a common attitude. You know the sentiment. "I'm all right but that guy, he's really a character." Needless, to say, nobody was disappointed. You would have appeared "queer" if you had been the only one of the 135 who wasn't a "character."

O.K.'s grandma trips are something. No kidding, they should be continued as a must! Two people suggested that their own personal experiences be publicized. Before going on their first trip one was suffering from ber-beri and the other from Bright's disease. Now, the only thing these hardy mountaineers fear is the typical campers accident. You know, turning your ankle going from commissary to burlap.

We all know that there has been a certain amount of criticism concerning the risk to aged, infirm and feeble grandmas. However, I agree that the feeling of confidence and accomplishment are well worth it. The only danger I noted was to Les Toby's bachelorhood. One of the Maidenly Aunts thought that his actions in helping her over a difficult spot were grounds for marriage. However, Les redeemed himself. He did a great job as M.C. at campfires.

The building of those giant sized campfires, in the opinion of all FIRST BASEMEN, is about the most important job in camp. In fact, it's hard to conceive that such an important task as this would be assigned to a group so inexperienced. Perhaps, next year the Ph.D.'s will be allowed this honor! (You couldn't depend on them. They are never in camp when you need them. Ed.)

With their extra time the FIRST BASEMEN can take up a worthwhile research problem. Perhaps, Oliver will assign them to a study of: "Costumes of the Glamaic aids in 1951." I swear the spangled outfit I saw on Powell would take Hollywood by storm. (Les - you've picked yourself a job for next year - we'll have nine glaciers near camp. Ed.)

We learned a great deal about the mountains from you Oliver. We know it was hard to talk louder and longer than Led Stebbins. Rest assured you accomplished your mission of teaching conservation.

Like wise few who had the opportunity of basking at Bob Thompson's feet, failed to absorb his philosophy. It's one thing to hear a man who preaches, it's another to meet a man who practices what he preaches.

One other man stood out for something besides his Scandinavian humor. The first basemen voted him: "The man we want to hike with next year." Cliff, we look forward to seeing with you.

When we first settled in camp, we FIRST BASEMEN couldn't conceive as to why anyone would want to knock himself out when here was the ideal spot to loaf in. On the last day of camp, a bunch of us "characters" actually made two separate and distinct hikes. Need we say more.

By the way, where are we going next year??

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There was a foolish female traveler
Who gave no heed to Oliver
She went out alone
And never came home
And the uproar she caused was a Hell-of-a

-*-

There's a character in camp most unique.
Takes a breathless leap in an icy lake
With never a quiver and never a quake;
Or sits by your fire in domestic ontent
While you loll in your sack or snooze in your element.
Climbs Mt. Haeckel close by your side
As over the granite you sliter and slide
And stays with you right to the peak.

Do you hanker to be as this shining gem
persued by the women, sought by the men?
I'll be a Good Samaritan
And introduce ---------------OUR BILLY CAN.

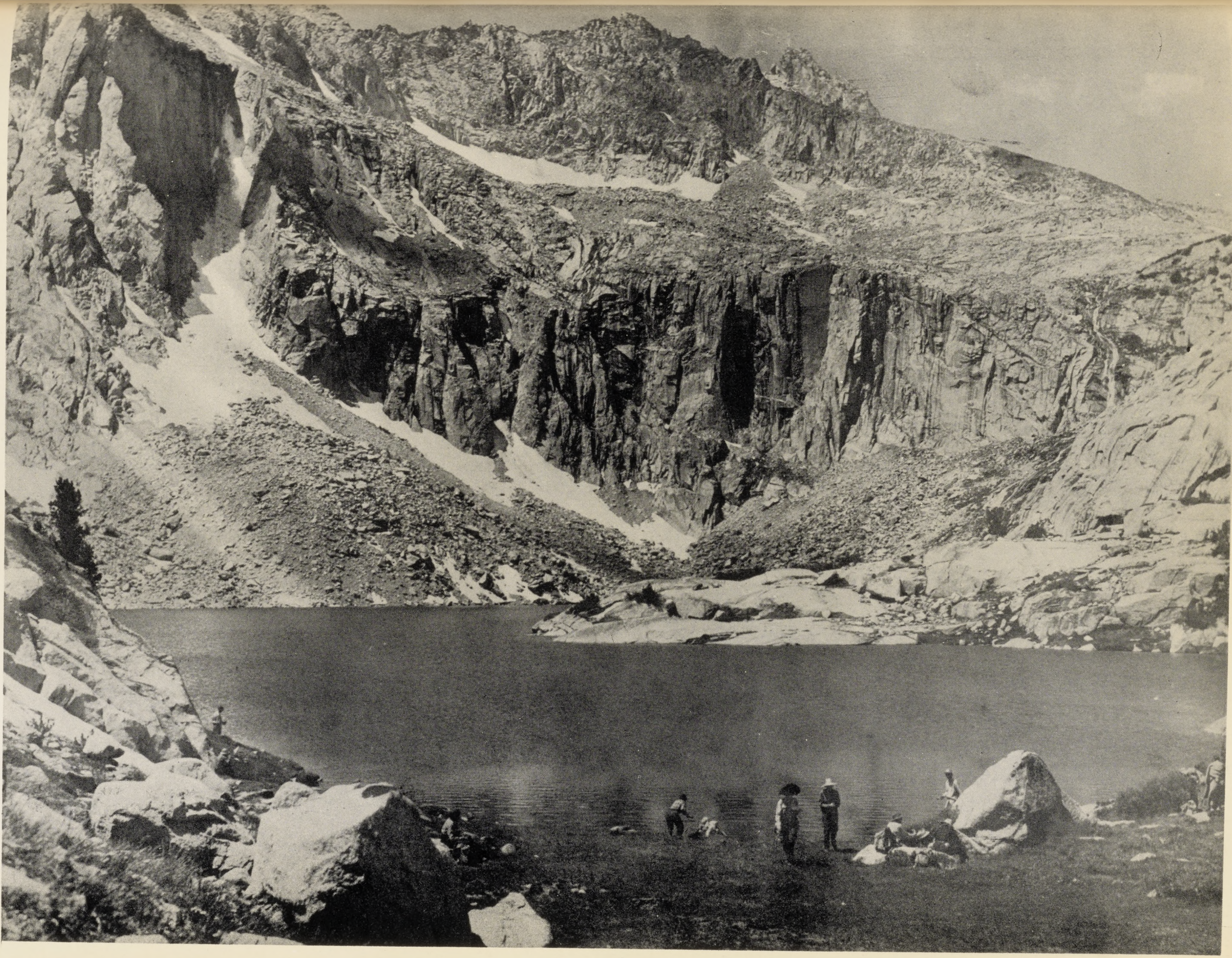
— Erin Johnson

I'd like to sit by a big campfire
Mmm and a little bit more
Singing songs before I retire
Mmm and a little bit more.
This will make my day complete
And I'll ask no more
For I'll have all that's coming to me
Mmm and a little bit
Mmm and a little bit
Mmm and a little bit more.

I'd like to be by a mountain stream
Mmm and a little bit more
Where I can sit and fish and dream
Mmm and a little bit more
There I can sleep beneath the stars
And I'll ask no more
For I'll have all that's coming to me
Mmm and a little bit
Mmm and a little bit
Mmm and a little bit more.

—Ada Wall

(tune: Red Canoe)



HUNGRY PACKER LAKE

by Oliver Kehrlein

"OLIVER'S NIGHTMARE"

1) Sandra - Let's see what we can do to be awful -

Evelyn - Yes, these people don't know how well off they are.

Mary K. - Why don't we go to the bath tub and get some nice big pollywogs to put in the soup -

Alice - Yes, and let's get some little ones to put in the coffee pot.

Carol - I'll get some scissors and cut windows in all the waterproofs.

2) Sandra - We could all go up together and roll boulders down into Commissary -

Evelyn - We could put snowballs in everyone's shoes before they get up.

Mary K. - I'll collect all the fish hooks and put them in the air mattresses.

Alice - Let's pour mud over everybody's dunnage.

Carol - Let's collect all the reels and cut the lines into short pieces and put them back so the fishermen won't know what happened until they go to fish.

3) Sandra - I know what we can do, let's burn up the mail sack with all the mail in it -

Evelyn - We could cut the ropes in all the tents.

Mary K. - Let's put mosquito repellant in the tea -

Alice - Let's make some wire entanglements around the burlaps.

Carol - I know - we can put water in Arnold's guitar.

4) Sandra - I'll put a big lunch sausage down the commissary stove pipes.

Evelyn - We could get all the commissary knives and use them for mumbleypeg.

Mary K. -Let's slash the flour sacks and put water in the dried fruit.

Alice - Let's cut windows in all the burlaps — big ones.

Carol - How about having a feather fight with people's sleeping bags? Then we can refill them with pine cones.

5) Sandra - Let's empty the chickie pail into the chocolate pot.

Evelyn - Wecan collect all the clean clothes and put them in one pile. Won't people have fun finding their own?

Mary K. - Why don't we dip Sunday's turkey in the garbage pit -

Alice - Let's tie knots in all the socks.

Carol - I'll paint pictures all over the rocks with everybody's zinc oxide.

- * -

POKEY HUNTUS

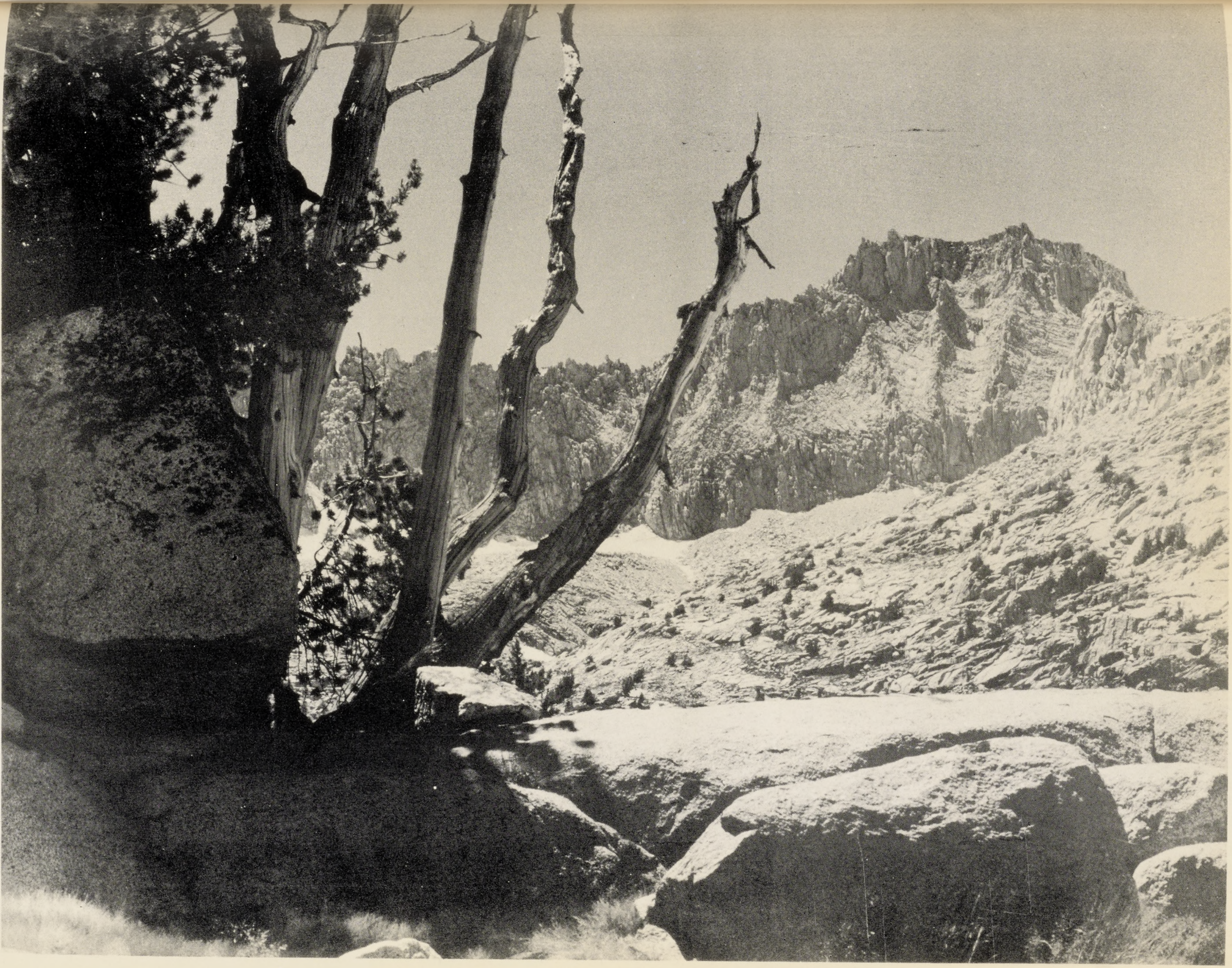
Presented by the Juniors (#2)

The following cast of actors regaled the campfire with the "thrilling" tale of Pocahantas and Capt. John Smith. The production was cleverly costumed and the impromptu scenic effects were typical of what a live bunch of live youngsters would think up.

The story is too well known to need repetition here, verbatim. Manly Captain Linda Y. Smith was properly saved by winsome Princess Margie Pokey Eaton and of course lived happily ever after. The audience thoroughly enjoyed the performance--about as much as the actors. Ed.

CHARACTERS:

Curtain	Dick Lion
Scene	Eleanor Godon
North Wind	Trissy Eaton
Pine Tree	Gary Lion
Elm	Maxine S.
Maple	Roger Lion
Plum	Alice D.
Sun	Merian St.
Brook	Lois Claypool
Squirrels	Heidi and Shirley
Situation	Morley M.
Capt. John Smith	Linda Y.
Pokey Huntus	Margie Eaton
Danger	Dick Barron
Chief Powder Can	Franz Borncamp
Holy Father	Dick Barron
Birds	Shirley and Heidi



M T. D A R W I N by James MacBride

Base Campers, in this enlightening article, will find the suggestion of a closer fellowship between us and the plants that inhabit our summer campsites. Professor Stebbins lets us in on the mystery of how the trees and plants adapt themselves to their long winters of frost and their short summers of drought. Ed.

HOW PLANTS ARE MADE TO MEET OUR MOUNTAIN RIGORS

by G. Ledyard Stebbins, Jr.

For plants as for people, Bishop Creek Basin is a most congenial environment during the brief summer, but a harsh one during the rest of the year. There are, however, two big differences between the way in which people become adjusted to their Sierran environment, and the way in which plants must become adapted to it. In the first place, the human population of the high Sierra is migratory, and avoids the unfavorable season, except for a few hardy but temporary winter migrants. As for the plants they must survive there the entire year. In the second place, the more or less (?) continuous sunny weather of the Sierran summers is most favorable to the human migrants, but unfavorable to the plant life. This is particularly true of those species which grow on the drier sites, since they face a water shortage during middle and late summer. The plants of this region, therefore, must be very well adapted to withstand both cold and drought.

It is remarkable how similar in many ways are the devices which plants have evolved to face those two different adverse factors. Many High Sierra and desert plants are alike in both outward appearance and inner structure and in some instances, Sierran and desert species are actually related to each other. The adaptations both to cold and to drought are of two main classes; first, devices for resisting cold or drought; and second, methods of avoiding these unfavorable conditions.

The chief way of resisting both cold and drought is through the development of hard, protective layers over leaves and stems alike. This type of protection is best illustrated by the pines. Compared to the leaves of most other plants, their needles are hard and tough. Their outermost cells are covered with a thick, waxy layer, which serves as waterproofing. In winter, it keeps the melting snow and ice from entering the leaves and tearing them apart by freezing; in summer it retains water in the inner cells of the leaf, and enables the plant to keep going when the water supply is low.

But pine leaves, like those of all other plants, must take in carbon dioxide and let out oxygen, in order to perform their vital functions of photosynthesis, or the manufacture of food. They accomplish this through tiny breathing pores. These pores are right on the surface of most leaves to allow free exchange of gases. But in pines and in many other plants of cold or dry regions, the pores are located in special pockets or depressions in the leaf surface, which can open up in relatively moist weather, but become tightly closed under dry conditions. Furthermore, the protoplasm, or living substance in the leaves of pines, and of many desert plants, is much more resistant to drying than is the living substance of most plants and animals. Other high Sierran plants which have similar adaptations are the juniper, the heather, and the pink pentstemon.

Valuable as these protective devices are to plants living under such unfavorable conditions, they can also work to their disadvantage, by slowing up the life processes. Such plants would probably be at a disadvantage when growing in more favorable conditions in competition with other plants adapted to that area. They have sacrificed vigor of growth for the sake of hardiness.

Another adaptation for resisting both cold and drought is the develment of a large root system. One find, upon digging up such cushion plants as alpine phlox or alpine buckwheat, that their root system is many times larger than that part of the plant appearing above ground. These root systems are valuable in two ways. First, they reach down for ground water far below the surface of the soil. Second, they store up food in special cells in their inner tissues as a reserve supply for that period when it is too cold or dry for the manufacture of food to go on.

One of the best known devices for resisting drought is poorly developed in the Sierran plants. This is succulence, or the development of fleshy leaves and stems, as in the cacti. Although the cactus family is represented by various species in the deserts on the east side of the Sierra, few of its members extend up into the mountains. One species was found on the Base Camp trail by Peter Raven and writer above Lake Sabrina at an altitude of about 10,500 feet; possibly a high altitude record for this species of cactus. In general, succulents are far more common in hot deserts of tropical and subtropical regions than they are in cold deserts; their fleshy structures making them more susceptible to frost. Two species of succulents, the roseroot and the Sierran stonecrop, were found near Base Camp. These plants, however, die back to the roots in winter, and so avoid the cold. Their succulence may be an adaptation to the rocky places where they grow, and the inability of their roots to reach out in search of moisture.

Among those plants which avoid cold are the deciduous trees and shrubs, such as the aspen, willow, and alder, as well as most of the lush, green plants of meadows and stream banks. When the first heavy frosts come in September, these plants quickly lose all of their green parts. The leaves of the trees and shrubs fall to the ground, while those of the smaller plants die back to the roots. Life is maintained only in woody stems and hard roots, with the aid of special food storage tissues adapted to this purpose. The tendency of these plants to die back in response to frost is part of their hereditary makeup. Most alpine plants, when transported down to the coast, become dormant in response to such mild chilling as they might receive in the San Francisco Bay region.

When the landscape around Dingleberry Lake or in any other part of the High Sierra is carefully studied, one notices that the plants, built to resist drought and cold, are usually most common on the dry, rocky ridges and gravel slides, while those which avoid cold by becoming dormant prevail along the streams and in the meadows, where moisture is abundant during the summer. The former are best adapted to places where the vegetation is sparse, and the competition with other plants relatively slight; the latter, being equipped to grow rapidly during the warm season when plenty of water is available to them, are strong competitors. The meadow plants are not only competing for a place in the sun; they are also competing with each other to attract the bees, hummingbirds, and other animals which visit and cross pollinate them. They therefore vie with each other in the showiness of their flowers or flower clusters. The fine floral displays of the Sierra are in the meadows and along the stream banks.

I have tried to describe the principal features which most of the Sierran plants have in common, and which enable them to survive in their severe environment. However, most of us familiar with the Sierra realize that one of the main themes of its flora is diversity. From pines to alders, from primroses to columbines, and from gentians to polemoniums, each plant gets along after its own kind, and each has its own distinctive methods of adaptation. The story of how each species adapts itself, and how each one arrived where it is now, is only imperfectly known. Why do gentian flowers close up at night and in cloudy weather, while those of the lily or pentstemon remain open? What value to the plant is the peculiar twisted snout on the flower of the elephant snouts? What enables the polemonium to grow higher on the mountain crests than any other plant? These questions, and many others, will eventually be answered by botanists who like to spend their summers in our own High Sierra.

- * -

LIMERICKS

Our friend that fine fellow named Dean
Tho seldom on hikes to be seen,
His treats gastronomical,
Are simply phenomenal,
When helped by Marcella, his queen.

Rodney Johnson

Five days did the fisherman tramp
Fishing all the lakes on the map
But at commissary
The fish grew unwary,
His limit he took right at camp.

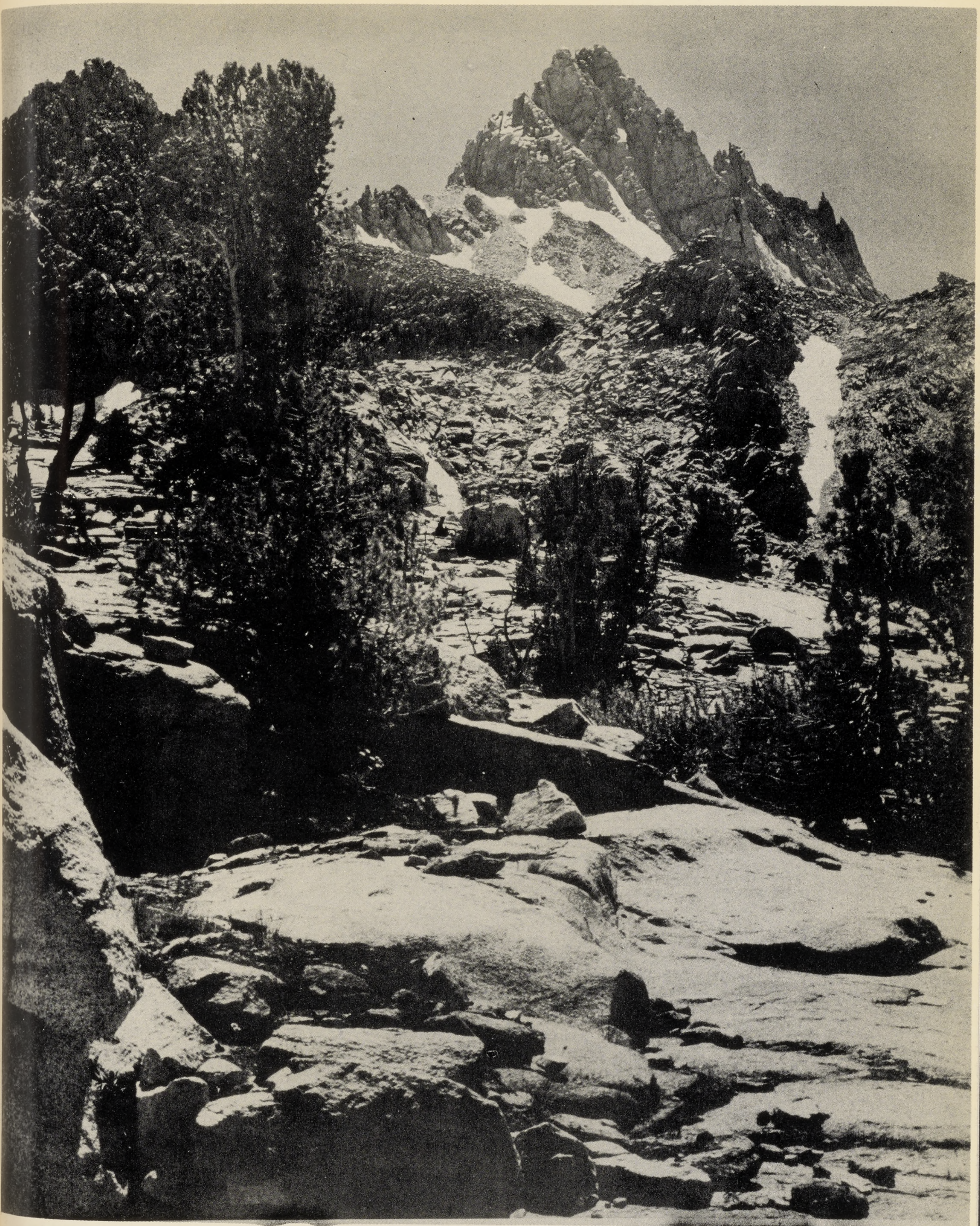
Rodney Johnson

Dauntless Oliver led up our band
On Grandmother's Nubbin to stand.
He brought back alive
All seventy-five
We thank all who lent us a hand.

Lucy Hall

Lucy Locket lost her pocket.
Katie Fisher found it.
It held her precious cup and spoon
With a shoestring tied around it.

Lucy Hall



MT. HAECKEL by James MacBride

Floods of forgotten memories are stimulated by each scene depicted so cleverly by Nancy MacCabe. Her Diary vividly covers the highlights of our camp life, pokes fun at our foibles and brings forth reminders of more serious incidents. Base Camp and its Annual Book would be incomplete without Nancy's final summing up--it is the savory demi-tasse after a sumptuous mountain banquet. Ed.

DIARY OF A BASE CAMP DILLETANTE

by Nancy MacCabe

Saturday, July 15

When the car starts up the narrow winding road out of Bishop we are thankful that it is late and we can escape some of the heat. But the deepening canyon and the sun on the opposite wall remind us that we are at last among the foothills of our own mountains: Shakespeare always has the right words:

> "How like a winter hath my absence been
> From thee, the pleasures of the fleeting year
> What freezings have I felt, what dark days
> What old December's bareness everywhere."

Poets sing of Happy Isles, Utopias, and being lost upon the mountains of one's choice. Today, after the annual agonizing game of Put and Take (dunnage, that is) 130 of us are again braving the heat of the valleys, the dubious Romance of the Highways, treacherous mountain passes, and, finally, the staggering ordeal of the fiery furnace of Bishop to join our friends in our own Bali Hai.

At Schober's Pack Station, after greeting Oliver, and the contingent from the South, we get our first limbering up exercise dodging stampeding animals, brambly bushes, and racing dogs and children. Herb Breed and Reg Hornberger provide us with lists and it's nice to see all the familiar names and speculate about the new friends we are about to meet. Marjorie, Eunice, Anne and I scramble around finding bedsites, weighing-in excess dunnage, and finding a place to park the car for two weeks. Just get everything settled in time to join the group for a first get together with Oliver who gives an exciting description of Dingleberry and makes everyone feel welcome and at home: Shakespeare says it again:

> "This night I hold an old accustomed feast
> Whereto I have invited many a guest
> Such as I love; and you among the store
> One more, most welcome, makes my number more."

We are sorry to hear that Herb and Reg won't be with us this year - we'll miss those Pat and Mike stories and all the nice little things they do to help everyone - but they came to see that we got started all right anyway.

Everyone is glad to get to bed early and we make our first camp among the stumpy trees, boulders, and sneeze weed back of the corral. Any little discomfort is a pleasure. Nice to watch the stars winking and blinking again and I bet these are just as big and bright as any they have in Texas.

Sunday, July 16

Wot Ho! No breakfast! Someone forgot to mention that there's no restaurant at the corral. An S.O.S. to the crowd brings in a deluge of contributions. Rodney Johnson, with the aid of a few sticks of wood, Stephanie's billy cans, and many cheerful helpers turns into a one-man coffee brigade and quicker than you can say "loaves and fishes" central commissary is in full swing. By 8 o'clock everyone is fed and the last hiker shuttled two miles up the road to speed him on his way. Art Schober leads the riders up the old pack trail and it is exciting to ride through the little settlement where the cottages have such tipsy names: Topsy-Turvy, Drunken Sailor, Hungry Packer, etc., and past the dust encrusted old abandoned mine. Climbing slowly through billows of white dust we are glad to ride into the shade of the tall pines scattered along the granite slope which runs down into Lake Sabrina. This man made reservoir is long, narrow, and rather bare looking but the jaunty little motor boats give it a festi e air.. I wonder fi it was named for nymph of the river Severn, celebrated by Milton in "Comus":

"Sabrina fair!
Listen where tho art sitting
Under the glassy, cool, translucent waves
In twisted braids of lilies knitting
The loose train of they amber-drooping hair."

To take our minds off the steep trail and skittish horses, Art regales us with tales of the pioneers. His family has lived in this region for many years. He and his brothers stocked the lakes in the Sabrina Basin in 1934 and are largely responsible for exploring and naming many of the historic landmarks. The name Dingleberry is self-explanatory - it seems there really is a berry by that name. Topsy Turvy describes the huge boulders scattered every which-way along the shore of that lake. Midnight Lake was named for a handsome stallion. Hungry Packer nearly became the graveyard of some careless packers. Drunken Sailor - there's sure to be a skeleton somewhere - a soused salt committed assault and battery there. (For this, ordinary folks get flung in the jailhouse but this lucky stiff had a lake named after him.) The gray-blue walls of Blue Heaven inspired that name. Bottleneck, PeeWee Pothole, and Fish Gut - 'Ugh' - should better have been Winkin', Blinkin', and Nod.

After last years stupendous, collosal and soul-satisfying trip to Mitre Basin and Mt. Whitney there is a little air of "Oh, well, we'll make the best of poor old Dingleberry". General apathy prevails and we roll resignedly thru the dust and scrubby underbrush and then, turning a corner, we suddenly ride into a different world! There they are! Great,big, gray, snow capped mountains. Hallelujah. The ants are out of everybody's - ah - saddles - and we can hardly take time out for lunch at Blue Lake. But it's like old times to have the billy can on the boil and hikers stopping by for a spot of tea and a little chat. Can't stop too long tho and we are back in the saddle again pushing on for Dingleberry. The

Emerald Lakes are cool and inviting and we make a mental note for future swimming parties. And then below us - the lake glistening in the afternoon sun and in the background the mountains - to quote Shelly - "washed by the soft blue oceans of young air" and "cataracts tumbling in white dazzle down gleaming cliffs". The home place looks mighty inviting and we leap off our steeds and have an old home week running around looking at all of the nice camp sites. A cup of tea withPeter,who is the first one everyone looks for, and we buckle down to decide on just the perfect spot. Saints Preserve us from Longfellow's sentimentalities but for once he hit the nail on the head: He said "The atmosphere breathes rest and comfort, and the many chambers seem full of welcomes"..

Dean, Marcella and Ned preside over commissary. Dinner,right on time, hits the spot with hot soup, steak, baked potatoes stuffed with sausage, fresh salad, and watermelon. This Bali Hai is no dream world - no, indeed!

Monday, July 17

Come and get it! Dean's voice floats through camp. Shall I stay in bed and watch the sun eating up the shadows on the mountain or flit like Spenser's Butterfly, over the landscape:

> "What more felicitie can fall to creature
> Than to enjoy delight with libertie
> And to be lord of all the workes of Nature
> To raine in th' aire from earth to highest skie,
> To feed on flowres and weeds of glorious feature."

Hot coffee cake - bacon - scrambled eggs! Granite walls bounce the message into every hole and cranny. Egad! Can't stand it! Away with idle fancy - on to the larder! Why should I feed on flowres and aire with a menu like that in the pantry.

After breakfast the territory aroundcommisary looks like the first session of an American Legion Convention. Groups are gathered here, there, and everywhere. First Basemen are initiated in one bunch. In another the knapsackers get into a huddle over possible routes and equipment. Rock climbers and natural science (ers) plan their activities and then they all get together to discuss the glacier trips.

Guess I'll take a stroll around the lake and try to fish. The shore is so interesting I forget about the fish and just enjoy the scenery starting with the tiny waterfall at the outlet. Exploring the sandy coves and natural rock gardens is delightful work but at Mary Galton's Penthouse at the end of the lake I am glad to knock off and rest a while. The luncheon party going on there is enlivened by Flick's fine reading of an account of a trip to the Enchanted Gorge. Since this is one of the trips coming up we are all interested. However, it sounds like a real killer-diller, the gorge being a deep hole in the ground choked by gigantic boulders. Only two men have been able to make it and come back alive. Guess I'll just wait to hear about it in the news.

Return home to find a chipmunk waddling off with my tube of toothpaste in his arms. "Hey, you" - he stops and the look of annoyance he throws over his shoulder is almost human. "O.K. Louie, drop the gun." Reluctantly he carefully lays the tube on a rock and sits down beside it to outstare me. This could go on all day and I want to go up to the swimming hole so we compromise on a big walnut which he lugs off to his lair.

With hints of rain in the offing we spend the rest of the day getting ready for any emergency. Anne, who has traveled on 30 pounds of dunnage, makes a comfortable shelter out of a cellophane tablecloth, numerous safety pins and bits of string. I set my tent - at what I am sure is just the right angle to catch all the wind and rain but also assures me a fine view of the mountains the first thing in the morning. Eunice finds a little spot under the thick bottom branches of a big tree — a la John Muir - and Marjorie picks a spot high on a nob overlooking the lake and the main trail. With a few ropes and a sail cloth she is ready for hail and high water.

Tuesday, July 18

First Grandma's hike today. This is an annual deception which means we can count on being back by Christmas. Our apparent destination is a nunatak above the lake-lately christened Grandma's Nubbin. There's no trail and we just scramble up the steep hillside. Every once in a while the ground levels off and we can stop for breath and to admire the new hills and valleys opening up in the distance. The spires and crags of Thompson, Powell, Haeckel and Darwin are visible and we begin to see the routes - with plenty of hazards - which we will be following in the next two weeks. Reach the base of the Nubbin about 11 o'clock. After a short breather the grandmas start up a sheer wall by way of a chimney -vertical crack - with the aid of several good strong men and plenty of rope. This is not for me! I'm tired! Amble on through the notch and here's Bottleneck. Everything is crystal clear and shining - surrounded on 3 sides by granite walls which slope gently down into the water. The fourth side is heavily wooded and makes a wonderful place to hide out from the mountain goats. Decide to do a little fishing and it develops that old Izaak Walton himself must have taken things in hand because inside of two hours and without moving from one spot I have caught a limit and have to stop. Near tragedy when the bag tips over and the fish flop back into the water. Nearly fall in trying to snatch them back. Only 2 o'clock and my business for the day is concluded.

Return to the base of the Nubbin and can see the grandmas prancing around on top. Someone with a feather in his hat is directing a party down a chimney and pretty soon Bob Thompson appears with the advance group. Going down is much easier than coming up - slip and slide, wriggle under fallen trees, plow through willows - and there's the lake. Clean my fish and fry them on the special fishermen's fireplace - for once completed the whole operation with no outside help. Try the results out on Anne and Murphy with no apparent ill effects - personally I can take my corned beef or leave it alone.

After dinner just as the alpine glow lights the peaks an airplane flashes across the sky and throws a shadow on the glacier:

"In the highest mountains
Navigators of the night
Purple Pallid bats
And giant Constellations
(Kansas City bound)
Fling Transient silhouettes
On granite screens
In the scarlet spotlight
Of the Alpenglow.

Wednesday, July 19

Enid Michael takes us on a very interesting botany walk. From her vivid descriptions we really get the feel of that private world going on all around us. Nature leads a busy complicated life all on her own - paying no attention whatever to distracting human beings. We even learn that plants have communities of their own - only certain plants can live in specified areas - some social sets congregate together in marshy ground and never never try to social climb into the high dry ground where they would soon find themselves out of place. In the dry ground natural flower gardens contain gilia, columbine, fire weed, daisy and thistles. Just a few feet away in the meadow along the creek there is an entirely different variety - aspen, willows, owl's clover, elephant's head, aster, arneca, potentillas and primroses. While we listened to the talk the Hermit Thrush and Rosy Finch perched obligingly in the branches of the nearby lodgepole pines and albicaulis. There's so much to see and learn we have the feeling that time is rushing by too fast and we'll never catch up with it all. It gives us a deeper understanding of Wordworth's lines:

"For I have learned
To look on nature, not as in the hour
Of thoughtless youth; but hearing oftentimes
The sad still music of humanity;
Not harsh nor grating, though of ample power
To chasten and subdue. And I have felt
A presence that disturbs me with the joy
Of elevated thoughts; a sense sublime
Of something far more deeply interfused,
Whose dwelling is the light of setting suns,
And the round ocean and the living air,
And the blue sky and in the mind of man;
A motion and a spirit that impels
All thinking things, all objects of all thought
And rolls through all things. Therefore I am still
A lover of the meadows and the woods,
And mountains; and of all that we behold
From this green earth."

Norman Clyde arrived in camp today and was greeted enthusiastically by all his old friends. Can't have too many real mountaineers around the place. Enjoyed his tales of wandering alone and on skiis over the mountains in the dead of winter. He could just walk right over Powell and Darwin glaciers. I don't know if I would like so much whiteness and stillness - think I could have to learn to yodel just to keep myself company.

At campfire Lois Claypool, singing, and Marion Ray, on the harmonica, did such a good job on Mexicali Rose for dear old Dingleberry Zing they are hailed as the new musical artists of the season.

Thursday, July 20

Today the Glamaid of Powell is singing her siren song and, not having the sense to stop our ears the entire camp charges the mountain. The sooner to ge there we scale a fifteen foot wall (pushed, pulled, and boosted by Morgan, Heinie, and John Morley) swarm up a dank, slippery, weed choked chute between the cliff and a roaring creek. Like the rats of Hamelin Town, we almost come to a sad and among the giant boulders around Topsy Turvy. Finally get the hang of it and

learn to keep high on the ridge away from the shore. The sun is getting higher and hotter and time's a wastin'. Pause a while at Drunken Sailor for the stragglers to catch up and to admire the flower gardens nestled in the lush green grass. From the ridge above Hungry Packer - which we reach with bolts of cotton in our mouths and not a drop of water to drink - we can see all the way back to Owens Valley and the Panamints. Moonlight Lake looks cool and inviting and there's talk of going down for a swim but the long climb back discourages us and the glacier is in sight now - with the siren call getting louder and louder. It is only 11 o'clock when we arrive at Echo Lake, each bearing his branch for the tea fire and looking like Birnam Wood come to Dunsinane. Soon the billy cans are at the boil and after a good lunch we crawl under any sheltering rock, since it is above timber, to cool off and take a little snooze.

But there's no rest for the moonstruck - or glacierstruck - ones. Lead by Oliver and Morgan they continue determinedly on their way. (Little do they know what the future has in store. Heh, heh, heh!) Another party, lead by Edith and Heinie detour to a fabulous iceberg lake higher up and around a couple of corners. Bob Thompson prevails on the sensible ones to go home the shortest and quickest way. Madeline and Rollin Irons, Marjorie Tregea and I decide to fish the creek and lakes on our way home. The creek seems to run over a series of granite steps and except for an occasional roche moutonneé where we have to make a slight detour it is like following a broad highway all the way to Topsy Turvy. A fine waterfall dropping off into a lovely deep pool seemed like a good place for a shower bath - with a nice little ledge back of the falls so you could sit and view the world thru a silver haze. We caught several fish in this pool and the Irons made quite a haul in the stream. In this section of the stream there were so many deep pools and little waterfalls we hated to leave.

Rush back to camp and almost topple into the Women's Bathtub - hastily change our course and scramble over the back wall, around the Children's swimming pool, thru M.C. Camp and into commissary breathless at 6:30 only to find dinner is late because the glacier party is still out. Oh me! And all those lovely fish jumping at Topsy Turvy - why doesn't somebody tell us these things?

It's 9:30 and the glacier party is still out. The Glamaid probably lured them into one of her ice blue caverns and closed up shop for the night. While the young ones cavort on the glacier the Old Folks at Home sit huddled around the fire singing sentimental songs - we don't really care what happened to them - if they want to stay out all night, let them! We just don't feel very gay. About 10; o'clock someone jumps up and says "That's Oliver, yodelling" - a long silence and then a faint "hallo". Then the flashlights begin to appear and it's a Hot Time in the Old Town Tonight! Everyone runs around waiting on the prodigals and they can have anything they want - everything except watermelon - that is. They report they never saw the Glamaid. No doubt when she saw such beauties as Enid Michael, Bracie, Olivia Johnson, Eloise Dyer, Katrina White, and Murphy Evans she knew it was no use and returned to her dungeons to keep cool in the face of so much competition.

Thursday - July 20 Cont'd

This mass demonstration of mind over matter inspires me to write a poem to all mountaineers - male and female, young and old - and is strictly from wishful thinking:

Serene, aloof
Calm as sierra snows
Glinting granite
Beneath cascading scree

Upright, lofty
Tall as the nearest star
Chatter marked
Buffer of the glacial lunge

Quiet, wistful
Winds that echo down the canyons
Drifting shadows
On the shores of time

Friday - July 21

Peter is leading the Maiden Aunts to Midnight Lake today. Decide to fish up stream - rough going - those Roches Moutonneés get in the way - fight my way through willows and fallen trees and all of a sudden there's a big blank wall. Have to climb a mile out of my way to get back to the stream up above - and then watch because the stream separates here and there and you find yourself well on into another county before you realize the main bed of the stream is far behind. Lose hooks - get stuck in the mud or weeds - tangled in branches but it's fun, once in a while, when you feel that tug and know one is hooked. I think it was Anthony who said to Cleopatra:

"Give me mine angle,
We'll to the river; there
My music playing far off,
I will betray
Tawny-finned fishes;
My bended hook shall pierce
Their shiny jaws."

The only thing is the fish don't understand the game. They are the ones who are supposed to be betrayed. Clambering over rocks and wading into mush is hard work and before I know I'm back in the meadow below Midnight Lake. It's clouding up and beginning to be windy and cold:

Wind ridden mist rags
Cover the sun and clutter the sky
Creaking branches
Bend and rear
And only now and then
Fling down a trembling lead
For the wind to tear

Friday - July 21 Cont'd

Here comes another fisherman. We decide to give over this toil and build a fire under a rock - barbeque the struggling monsters and eat them southern fried corn pone style from tip to toe. Much easier to relax and discuss world affairs than to struggle any further with the tawny-finned fishes and their shiny jaws.

Arrive in camp in time to see the rock climbers in action. They are getting in trim for the big climbs ahead. Also they are willing to teach the techniques of flimbing and the use of ropes to anyone willing to learn - in fact they declaim threateningly that only those familiar with the use of ropes and toeholds can go on the glaciers. This fear of never setting foot on the glaciers brings many trembling victims to the foot of the 50 ft. wall. When the knot is tied they swing out bravely for the test fall and at the cry of "Up rope" pinion themselves spread eagle to the wall with the desperation of drowning men. A large audience of shuddering, gasping spectators agonizingly follows each move until the quivering hero is safely lying on his stomach on a big flat rock on top. Of course, we are given to understand, this rope stuff is for amateurs. The real climbers like Oliver, Bill Evans, John Morley, Jim Koontz, and Dick Johnson just climb the wall without benefit of rope or any support and I'm sure Ringling Bros. never had a more fascinated audience in their most spectacular death defying trapeze acts. Just to make it more interesting Oliver insists on shunning the obvious cracks and handholds and makes his way up a nice smooth shiny wall - my hands are perspiring just watching it and I am afraid to breathe for fear of disturbing his balance. We hardly have time to quiet our racing pulses when Mary Galton, dashing by on a handsome palamino stops long enough to walk nonchalantly up the wall and even hand on long enough for all the photographers to do their stuff. Very exciting end to a busy day - in fact we are all so shaken we can hardly handle the second helping of Butterscotch cream pie at dinner.

Saturday, July 22

Grandmas' trip to Hungry Packer today. Followed main trail out of camp and branched off to the left just above the falls. Another one of those crossings where you hang by your fingertips and toenails but with the help of a giant tree sprawled across the creek we make it safely. Crossed the creek again at Pee Wee Pothole and continued on past Drunken Sailor to Hungry Packer. Rather cloudy but the lake is a nice deep green. Made tea and enjoyed a leisurely lunch. Still early so Oliver and one party decide to cross the ridge to Midnight Lake - looks mightly high and black up there. Hardly get myself settled for some serious fishing - there are plenty of big fellows gliding around down there - when occasional big drops come splashing down. Guess I'll move on down to a lower lake in case it really storms. The granite basin is friendly open country and tho you walk alone for miles it's just like taking a stroll around home.

Just reach Drunken Sailor when I hear shouts from the ridge, The other party has reached the top already and have cameras set up on the highest nob. Someone has good eyes or a good glass because I hear my name above the wind. The black clouds are creeping steadily forward and then there's a blinding flash of light. See someone grab up the cameras and they hurry down the other side. Rain is now coming down in sheets so I'd better find shelter - there's not much shelter around here - just scrubby trees and big boulders. Ah - there's a big tilted rock - can just crawl under it and stretch out to ride out the storm. Towards Bishop the sky is perfectly clear and sunny but over the mountains thunderous clouds are blotting everything from sight. The rain has turned to hail and the big pellets are bouncing all over the place. I'm lucky to have a dry spot - reminds me of Robert Herrick's little poem:

"Lord, thou has given me a cell
Wherein to dwell
A little house, whose humble roof
Is weather-proof
Under the spars of which I lie
Both soft and dry;
Where thou, my chamber for to ward
Hast set a guard"

After about an hour the rain stops and it seems awfully quiet after the siege of whistling winds and stinging whirling snow pellets. The ground is covered with a thick coating of hail which looks like snow. Reminds me of spring in New England. This is summer rain? Hope the people on the other side found shelter too. Fish the creek down to Topsy Turvy but no luck - reach Pee Wee Pothole about 6 and the joint is jumping. Here's a chance to try out the white eggs Etta MacEwen gave me this morning. Catch two large fish in about 10 minutes. Have trouble with sunken trees and roots. A marmot crawls around on the rocks in front of me like a big cat - is very intense and watches my line with interest. Ray has caught 13 in about an hour. Hate to leave but we are already late - run down the long chute and climb over the back wall - land in commissary about 7 o'clock. Dinner is all over but there's plenty of soup, tomatoes, and ice cream.

Things are quiet with Flick and Mary Galton gone - they had to leave today. Also Marion Jones and the MacEwens went out with the pack train. I'm not saying they are the noisiest ones - but the ones with the most talent. We'll miss them at campfire.

Sunday, July 23

No trips today! Late breakfast and plenty of time to enjoy the scrambled eggs, country sausage and delicious coffee cake. This is the social hour and the time to show off that last clean shirt or jeans. Later, when the wood is all cut and the various camp chores are taken care of the different groups get together for services. The catholics meet at Kay Izett's camp, At commissary, Art Meyer reads an appropriate piece and Mary Chamberlin sets the scene with some lovely violin music. On a rocky ledge above the lake and with a fine view of the mountains some Christian Scientists meet to read and talk.

After lunch the big promenade begins. It's open house everywhere and each camper is proud to show off all the advantages and conveniences of his special spot. Angelina Jeffries and Eloise Dyer, in a tree shaded rock pile close to commissary, seem to be the winners for all around convenience, scenic advantages, and social prominence. At four o'clock Edith, Stephanie, Mary, Gladys and Sylvia are ready for guests to celebrate Heinie's birthday - and what a feast - and what a lovely spot for a party - late afternoon sunshine sifting down thru the gently swaying branches, and the lake shimmering in the background.

Campfire this evening is dedicated to the memory of Emily House - our companion on these trips for many years. Peter Friedericksen, Cliff Youngquist, Florence

Crane, Morgan Cuthbertson, and many others tell little stories and anecdotes about Emily. Since anything involving Emily was ~~always~~ gay ~~and exciting it~~ is with mixed emotions that we speak about the happy times and then remember that there will never be any more with her. Just at sunset the sky breaks into a blaze of startling colors and we have to stop the speeches to stand up and watch flashing blues and flaming reds highlighted in the background by great shafts of silver. Wordsworth's lovely words describe it perfectly:

"Fabric it seemed of diamond and of gold
With alabaster domes and silver spires
And blazing terrace upon terrace, high
Uplifted; here, serene pavilions bright
In avenues disposed; there, towers begirt
With battlements that on their restless fronts
Bore stars, - illumination of all gems!"

It was as if Emily was, as usual, trying to entertain and beguile us by exhibiting the beauty and glory of her new home!

Monday, July 24

Another assault on Powell Glacier by way of Baboon Lakes. This time we climb over the ridge above the Emerald Lakes and sneak up on the Glamaid from the side. She expects us to come bucketing up from Echo Lake again and we hope she has all her ammunition stashed over there. Won't she be surprised! Approaching from this side we get a better view of Mt. Thompson. Morgan and Jim Koontz, who were up there with a party last week, say there is a natural medieval castle on the top of Thompson - inside staircase, ramparts, and, who knows, maybe some earthbound Hamlet to keep the Glamaid company. Altho the sun was shining this morning it is quite dark when we get to the first Baboon Lake and lunch at the last lake is eaten beside a roaring waterfall with an eye to the lowering clouds.

Nothing can deter the glacier party tho and after a short rest they push off again. For a few minutes the lazy ones below watch the rapid ascent and then they are all lost among the twisting and turnings of the mountainside.

Since it looks so much like rain the group votes to return at once with Ned. With Larry as rear leader we work our way back over the ridge, pausing now and then to search the opposite ridge for signs of the climbers. Sometimes we can catch a glimpse or hear a shout and the last we see of them they are scaling a steep wall just below the ice and snow of the glacier. We take the National Forest trail just above Blue Lake and it seems like plowing through a field of dust. When we reach the Emerald lakes there is a general outcry for baths - with four lakes to choose from there is plenty of room and the trumpeting and splashing probably set the mountains even farther back for the climbers. Race home just ahead of the storm and the tents provide a nice dry shelter from which to watch the course of the storm across the mountain tops.

7:00 o'clock and the mountain party returns with tales about the beauty of the Bergschrund - they finally get to the top! Sad to say, however, the Glamaid was out. She was probably jumping from Haeckel, to Darwin, and back to Powell with Hezekiah and the group making first ascents.

Tuesday, July 25

"Night wanes - the vapors round the mountains curled
Melt into morn, and light awakes the world."

That's the way Byron said it - but Dean prefers the singing commercial. This time it's "Wheat Cakes - Come and get your red hots - get up, get up, get up." This is the only restaurant I know where they put the menu on the loud speaker. And such a menu - fresh cantaloupe, hot cakes, Canadian Bacon - cereal, tea, coffee, chocolate - oh, my stretching waistline! After breakfast - all hands on deck for the group picture - everybody gets in except the photographers and Bracie.

Oliver and the Phd's are off to the glacier again. Watching them depart, laden with ropes, axes, and other gear I have to laugh to myself. A certain person has declared publicly (see page 8 of Pacific Discovery for May-June, 1950)that no one can fall in love with a glacier - "they are frigid, ponderous, and streaked with dirt" - he says! Ho-hum! A rose by any other name - and love is blind. Yes, indeed.

Guess I'll fish again today. Maybe I can catch a limit. Load myself down with every lure I can find but after hours of beating the bush downstream all I have is eyestrain from staring at the water: Leigh Hunt's mournful dirge appeals to me right now - it is a comfort to know others have felt some misgivings about the advisability of spending time this way:

"O scaly, slippery, wet, swift, staring wights
What is't ye do? What life lead? eh, dull goggles?
How do ye vary your vile days and nights?
How pass your Sundays? Are ye still but joggles
In ceaseless wash? Still nought but gapes and bites
And drinks, and stares, diversified with boggles?"

And that, my dear fish, for you!

At campfire Oliver and his party announce that they reached the glacier and scaled the back wall above the bergschrund but were greeted by thunder and lightning and had to beat a hasty retreat with singed coat tails. That will learn them to call a self-respecting glacier frigid and ponderous.

Wednesday, July 26

This is the big day. Oliver, Jim and the Serrs start for the Darwin Glacier right after breakfast. Peter is leading another group to Blue Heaven, where the group will split up, and Norman Clyde will take a party to the foot of the glacier. We start out on the Midnight Lake trail but keep to the right high above the lake. Peter sets a good fast pace and by 9:30 we make the first long stop on the ridge above Midnight. Here Norman takes the speed burners and starts for the glacier. The rest of us are satisfied to just mosey along and enjoy the scenery. The climb from Midnight to Blue Heaven is through a steep valley with barren rock walls. A nice little stream, with mossy banks, trickles down from Blue Heaven to Midnight and provides a refreshing drink now and then on the long climb. As we near the lake the trail gets rougher and the last steep pitch is a real climb. From the lunch spot we can see the glacier party crossing the cat-walk above Blue Heaven. Plenty of big old fish swimming around but they are not hungry. It's clouding up again and we decide to go down to Midnight. Peter takes a straight route down to the lower lake and we have to clutch trees and rocks in our wild descent to keep from doing a humpty dumpty. Say goodbye to the group and take off around the lake for a little fishing - am going to catch something today come rain, hail, snow or - what's that? Thunder and lightning and I'm back in my favorite position - crouched under a rock peering out through swarms of gnats and sheets of pelting rain. Oh me! Shakespeare must have been on a Sierra Club trip at some time or other:

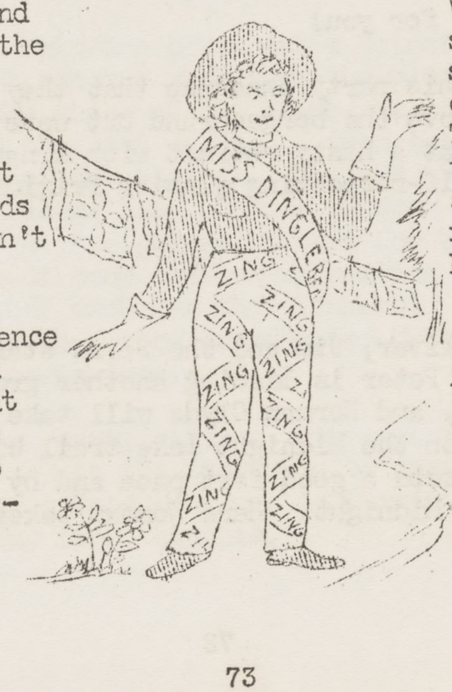
"Full Many a glorious morning have I seen
Flatter the mountain-tops with sovereign eye
Kissing with golden face the meadows green
Gilding pale streams with heavenly alchemy;
Anon permit the basest clouds to ride
With ugly rack on his celestial face
And from the forlorn world his visage hide
Stealing unseen to west with this disgrace."

At campfire Oliver and the PHD's report they reached the top despite the storm and that the trip was very exciting and worthwhile. Lucy Richardson broke all the women's records by climbing the steep ice above the terminal morraine of Darwin - a feat which even the Glamaid would have to appreciate.

Thursday, July 27

"Who am I?" That's the big question today. You have to be a famous character to get into the show this afternoon. There's more backstage activity than for a production of South Pacific. In all the camps people are twisting little pieces of paper, painting signs, or draping themselves in any old rags, bags, bottles, and bones they can find. And VISITORS ARE NOT WELCOME. Marjorie offers to show me the secret of her success with the creek fishing and since she has turned out to be the champeen fisherwoman in camp I am glad to take advantage of the instruction. There are lots of nice deep pools and plenty of fish but they're just not interested in food. Those little clouds are beginning to gather again. Peter said it wouldn't rain but I don't like to get too far away from camp. My bed isn't covered.

Return to camp to find Florence and Irma foundering in a sea of mosquito netting and spangles as big as your head - Hmm - what could that be - bareback riders? Dancing Girls? It develops they are Fatima and her Lady in Waiting. Irma, who is an expert, hand blocks a banner for me and presto - I am Miss Dingleberry of 1950! The Bandana Show is in full progress when we arrive and I must say Neanderthal Estates never



looked lovelier. There are so many unusual and beautiful bandanas the judges must have a hard time picking the winners. The Gadget Show has some amazing items - the winner being a very classy knife - entered by Richard Belli - a souvenir of Switzerland and outfitted with everything but the kitchen sink.

The Art Show has some interesting black and whites, water colors, and wood and stone sculpture. Hardly have time to admire the miniature flower gardens when the Whiskerino Contest comes up. Competition is keen this year - about twelve entrants - and Bob Thompson is the winner - but there's talk of dirty work at the crossroads - he has secretly been using a dressing called Dingleberry Zing - could be a case for the Kangaroo Court!

It's hard to find your friends under the makeup! What with pirates, gypsies, cave men and women, beauty queens, Huck Finns and Tom Sawyers - to say nothing of Little Miss Muffet and her spider - the landscape is pretty well cluttered up and I can hardly find my way to the punch bowl - and by the way that added "Zing" sure peps it up - where besides some very delicious trout paste - made from our own Dingleberry trout (according to Cliff's secret recipe) there were Dean's contributions - home made cookies and hot buttered popcorn.

After the official activities are over we still feel partyish so Marjorie (as dear Louella would say in her gossip column) hosts a party at my house and we continue celebrating until dinnertime. Lots of other people are doing the same thing and what with eating here, there, and everywhere all day it is hard to do justice to Dean's delicious dinner.

At campfire the Freshman Follies, with Carroll's hot rendition of "Music, Music, Music," the Judge's imitations of Jolson, Cantor, and Jessel, and Lucy's lovely Hula finished off a very fine day. The moon is almost full - we can't find our way home without flashlights - and the towering peaks around us arelighted with an eery radiance - nobody feels like sleeping and the flaring campfires and snatches of song make it seem like a gypsy encampment.

Friday, July 28

Everyone lingers over breakfast - Marcella and Dean are leaving today and already there is talk of "next year". Back to camp and packing excess. Heinie is on the march and bags have to be ready. Even the chipmunks seem to sense something - one bold fellow makes a flying leap and lands in my lap - can't shake him off - "It's no use, brother, this is the end of a beautiful friendship," The painters have an art class and we try to paint one scene - a fine Lodgepole towering above a little brown tent, with a fireplace and billy can to add color. After several hours of hard concentration, advice, and kibitzing from our so called friends the verdict is "everything ain't what it seems to be" but it was fun trying and Florence has the best picture.

Bracie's party in the afternoon, turns out to be one of the highlights of the social season - - delicious punch, hors d'oeuvres, nuts, candy, and fruit. Bracie's camp is set on a 50 foot rock ledge above the lake with a wonderful view on all sides - trees and lake in the foreground and mountains in the rear. This was a fine vantage point from which to see the whole camp. For our entertainment Oliver produces some kodachromes of Mitre Basin and Ruth l'Esperance makes beautiful music with her violin: Reminds me of Sidney Lanier's The Symphony:

"A Velvet flute-note fell down pleasantly,
Upon the bosom of that harmony,
And sailed and sailed incessantly,
As if a petal from a wild rose blown
Had fluttered down upon that pool of tone,
And boatwise dropped o' the convex side
And floated down the glassy tide
And clarified and glorified
The solemn spaces where the shadows hide."

Anne has returned from what started out to be a little botany walk with Enid and the botany group. They started out for a little walk and wound up at Hell Divers Lakes - all this sans sun glasses, lunch, or any other little comforts of the trail. This sort of thing shouldonly happen on a Grandma's trip with Oliver. Note: To all future hikers! Do not be deceived by their benign looks and smiling ways - BEWARE - or you, too, will get hung up on a precipice - many long miles from home.

Sure do hate to see dat evenin' sun go down - because we won't be here tomorrow. Am going to miss the light from Enid's fire dancing on my bed, the trees, and the walls of the canyon - and Marion playing the Zulu Warrior softly on the harmonica.

Saturday, July 29

Up betimes this morning. Dunnage goes out in two sections so the Northerners get first choice since they have farthest to go. By 7:30 Heinie has carried dozens of bags down to the weighmaster - I am the last as usual - hate to tie that last knot. Ned is the chief cook this morning and everything is so good we keep coming back for more. Sad to say goodbye and everyone agrees it was the friendliest camp we've ever had both as to surroundings - even the mountains and nature in general - and people. Someone tries to think of even one person who might have been standoffish or neglected but couldn't name a single one! Little Heide - the 3½ year old Sweetheart of Base Camp personified the spirit of the mountains - two weeks of roughing it and not a single tear or tantrum! One last round of handshakes and we start mournfully down the trail, stopping every now and then for a backward look at the lake, mountains, or a particularly beautiful tree. Someone breaks into Walt Whitman's Song of the Open Road:

"Afoot and light-hearted, I take to the open road,
Healthy, free, the world before me,
The long brown path before me, leading wherever I choose.

"Henchforth I ask not good-fortune--I myself am good fortune;
Henceforth I whimper no more, postpone no more, need nothing,
Strong and content, I travel the open road."

We've been over this trail so often now it all seems familiar and it's no time until we are at Blue Lake - the last vantage point for a good look at the mountains. Hustle by the trail builders blasting out the trail and then Sabrina shining below us. Race down into the village and there's a last get together under the shade trees by the tumbling creek - seems funny to see fish swimming around in the water so close to the highway. A last long hitch through the dust of the old pack trail - with a mad scramble to clear the trail now and then for the pack train carrying dunnage for the second two weekers - Oh, me! Wish we were headed back in the other direction. Finally reach the corral around noon and take time for a long cool swim in the shady creek - then to greet the newcomers - among them the Crites, Pauline Dietz, Ruth Danforth and May Randall. Finally hit the road and turn the car towards home. At Bishop we stop at the Golden State for a cool drink and to admire and study the fine paintings of Robert Cluny, the mountain painter. After struggling with the colors ourselves we appreciate the difficulties he must have had in capturing so successfully the personality of his subject.

With such an expert driver as Marjorie it's no trouble to get over Tioga Pass and into Tuolumne before dark. At dinner in Tuolumne Lodge we run into the High Trip and it's another gab feast - some of them have just left the High Trip and others are going into the mountains again. When we finally make camp down by the river near Parson's Lodge everything is quiet and only the moon reflected in the river "as clear as elemental diamond" is there to greet us - as Byron said:

"All heaven and earth are still - though not in sleep,
  But breathless, as we grow when feeling most;
And silent, as we stand in thoughts too deep;-
  All heaven and earth are still: From the high host
  Of stars to the lulled lake and mountain-coast,
All is concentered in a life intense,
  Where not a beam, nor air, nor leaf is lost,
But hath a part of being, and a sense
Of that which is of all Creator and defense."

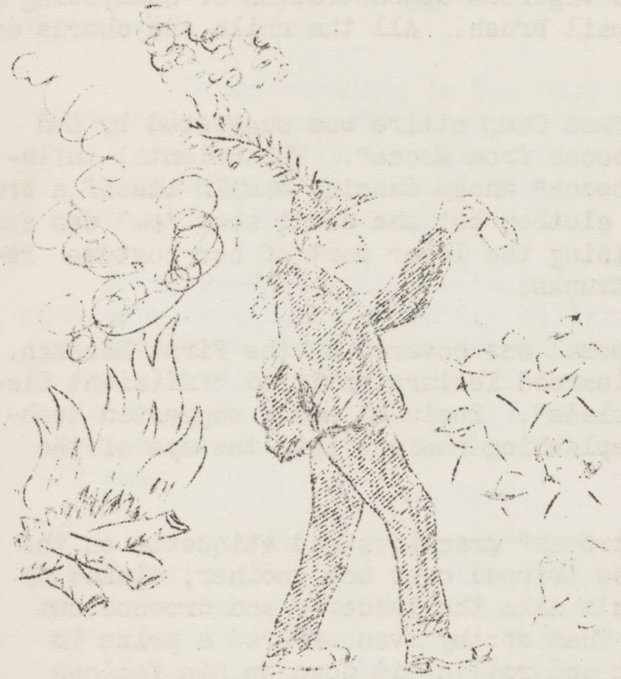
It is so beautiful in the quiet moonlight that we just lie there watching the fish jump along the edges of the river and listening to the occasional stir of the branches overhead. The distant peaks are bathed in a white radiance and there is indeed a mysterious feeling of being one with the universe!

One of the delightful portions of our camp activities has been the regular program produced by the First Basemen. This year's "productions" were no exception. The theme for the Second Base Camp was well chosen as it good-naturedly ribbed some of the cherished customs peculiar to our way of living. Would that we could adopt some of the suggestions offered. We might try. Ed.

"DOWN WITH TRADITION"

First Basemen (#2) Denounce Venerable Customs

"Down with tradition!" was the theme of the campfire program presented by the First Basemen of 1950 Base Camp II, Thursday evening, August 10.



Following the opening remarks during which all past procedures were reversed and Oliver was appointed campfire re-fueller for the evening. "Found and Lost" was the first order of business. The Eaton family--Fred, Helen, Patricia, Margery and Shirley--presided. A new twist was given to the old routine: the finder instead of the loser paid the penalty.

"The iron-clad heart of the Sierra weighmaster" had softened up in "Weighing In", the first skit. Nancy Bordewich (Nello Shelton) received a tongue lashing from Oliver (Al Gustus) when her dunnage bag hefted a husky 55 pounds. "You know the limit is 30 pounds. Now you take the bag with you and don't come back until you have at least 80 pounds!" And Nancy made her exit weeping with remorse.

Commissary was the next to suffer. The First Basemen's idea of food service in camp brought Florence Youngberg as a gorgeously gowned guest. Fashion Note: Her evening gown had a billowing skirt of mosquito netting with a decollete bodice a la bathing suit. She was served in style by the maitre d'hotel (Al Gustus) and three waiters (Pen Penalosa, Reno Cole and Peter Raven).

The menu consisted of Soup du Jour avec Crampons, Scurvy Grasse Salad, Roche Moutonnier a la Moraine (she turned down the other entree Chickie a la Pail), and Meringue Glacee de Powell as dessert. Beverage? Champagne Dingle-berry 1940 from the famous Fish Gut Wineries.

After dining the guest was presented with a hot water bottle and robe for her night-time comfort. (Complaint by Bob Thompson: "They got my clean bed sheet dirty using it as a table cloth.")

Tradition was really shattered when Helen and Bill Wallace moved the women's and men's bath tubs into closer proximity. "Precedent says the girls' pool shall be a couple miles from camp thisaway, and the boys' several miles thataway," explained the emcee.

As the "Dingleberry Rockettes" danced in singing the theme number "We're Going to Wash Tradition out of Your Hair" (apologies to "South Pacific"), the two principals dressed in bathing suits, each moved his galvanized wash tub from the side of the stage to the center. Then there was a vigorous demonstration of shampooing and washing each other's back with a chickie pail brush. All the while the chorus continued its singing and high-stepping.

In the next act a new idea in Base Camp attire was suggested by Led Stebbins in his rendition of the song "Rebecca from Mecca". The oriental influence was personified by Les Barron as "Rebecca" whose dancing was in itself a break with tradition. When the line "She's got clothes but she don't wear 'em" was sung, "Rebecca" dropped the Turkish towel comprising the lower part of her costume revealing a pair of brilliant blue bathing trunks.

Even the subject of garbage disposal was covered by the First Basemen. Reno Cole, the efficiency expert, gave a learned lecture entitled "Efficient Dispersal of Metallic and Organic Waste Materials". Included was a suggested technique fo can-flattening that would avoid splashing residue into the eye of the onlooker!

Ernest Lion next demonstrated "proper" practices and etiquette on the trail. His group of hikers of various ages tripped over one another, kicked up dust, picked their own trails if they didn't like the leader's and drowned out the leader every time he tried to speak. That worthy even offered a prize to the individual dislodging the largest rock and rolling it down on his fellows during the hike . The children were urged to do just as they pleased. Oliver and Cliff were observed hiding their faces and shuddering all during this skit.

Many facts new to geology and glaciology were told to the amazed audience following the introduction of Oliver Kehrlein impersonated by Led Stebbins. The instructive remarks were preceded by announcements regarding activities that had not happened that day and would not happen the following day. The fish count took a new twist: Those who didn't catch any were listed, those who did were ignored.

The speaker was somewhat taken aback, however, when Bill Wallace as Led Stebbins rushed in and went into a frenzy of delight at finding a new species of plant near the campfire.

For the program's finale the chorus and cast sang "We hope we've washed tradition out of your hair". Someone remarked that tradition had been washed not just out of his hair, but completely out of camp.

Before turning the program over to Les Toby, Les Barron, producer of the show, expressed appreciation to the First Basemen who participated and gave credit to the outsiders who helped: Hazel Simon for the incidental music and Pete Friedrichsen for his sign-painting.

Appearing in the program in addition to those already mentioned were Melza Ballentijn, Vera and Richard Barron, Miriam Cole, Gerrit and Heidi Henstra, Virginia, Garrett, Richard and Roger Lion, Bob Owen, Johanne Ringk, Marcella Stagnaro, Edy Stebbins, Dr. Mae Vonseeger and Lynda Youngberg.

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First Basemen 's Night

CLIMBING WITH HEZEKIAH

By Betty DePriest

(With apologies to Mary Galton)

Hezekiah and I had a very exhilarating climb today. It was entirely unpremeditated on my part, and I'm sure that Hezekiah, in his right mind, would never have chosen me as a climbing companion. This is the way it happened.

I was standing in the chow line, rather late for breakfast, hoping there would be some scrapings in the mush pan, when Hezekiah went by so fast -- that I was caught in the slip stream and carried along. The next thing I knew, I was standing on the Powell Glacier. Then my feet slipped and I went down. Hezekiah, feeling his responsibility, rescued me and hauled me up to the top.

I was ready to go back to camp right then but Hezekiah wanted a little more exercise. He grasped the collar of my windbreak firmly in his teeth (do fleas have teeth?) and leaped toward Wallace. But his grasp slipped and I went plummeting downward. Fortunately, I got hung up by the seat of my pants on an arrete, and there I gazed with terror at the rocks below. However, Hezekiah came back, plucked me off the arrete and set me down on the top of Wallace.

Surprisingly he wasn't yet too discouraged to go on. He gathered up all his strength , and me, for a mighty leap to Haeckel. We made a good landing just under the top of Haeckel, found a beautiful chimney, without a chockstone, and wafted up it to the top. I opened my eyes and eagerly looked around at the panorama below. What a marvelous collection of rain clouds!

Now at last, Hezekiah had had enough! With a hop, skip, and a jump we descended, and I reached camp in time to patch the seat of my pants before dinner.

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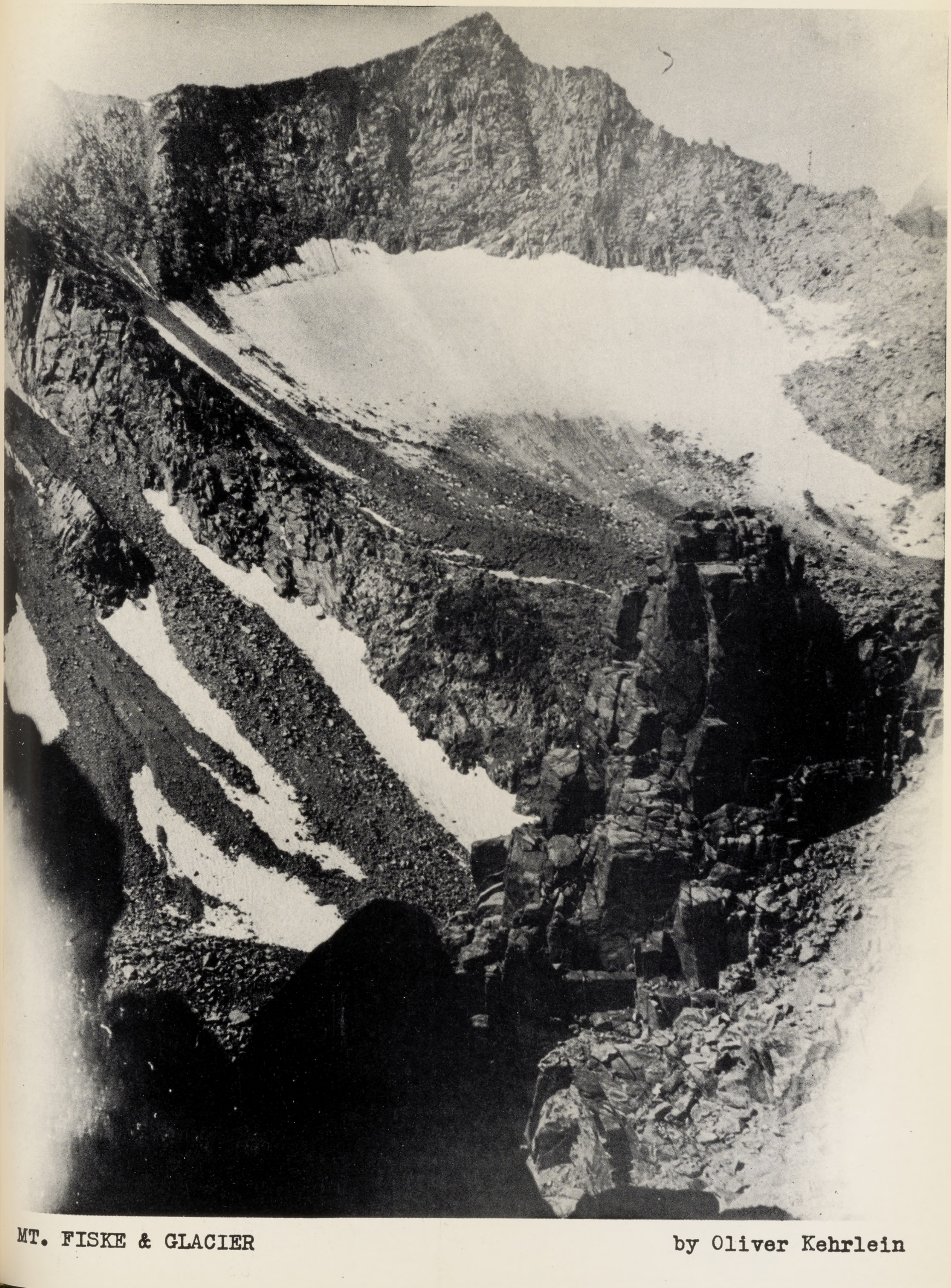


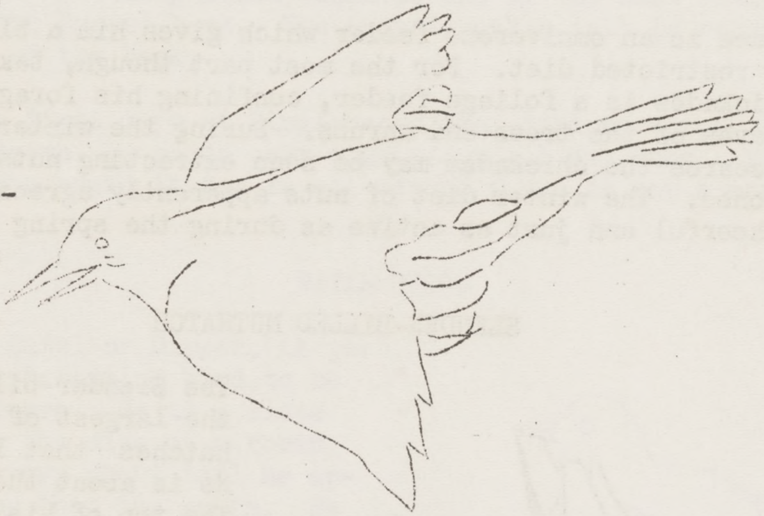
MT. FISKE & GLACIER by Oliver Kehrlein

OUR FEATHERED COMPANIONS

by Enid Michael
assisted by Frances Payne
and illustrated by Marion Ray

In more ways than one the Base Campers were fortunate in having Enid Michael with us this summer. Under her sponsorship, birds ceased to be noisy, flitting things about camp and took on interesting personalities. For the first time we became acquainted with Green Tailed Towhee. On Dingleberry Heights we became familiar with the intimate family life of the Water Ouzel and now are able to distinguish one member of the Sparrow family from another. Thanks to Enid. On the following pages she has cleverly described our feathered companions of the summer. Marion Ray has carefully illustrated the articles. Frances Payne shares in the descriptions. Our appreciation to all three for an invaluable addition to our B.C. Book. Ed.

THE CLARK CROW

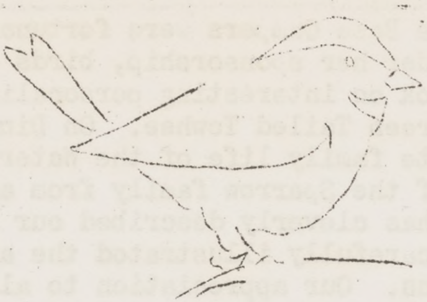


The Clark Crow, or perhaps better known as the Clark Nutcracker, was named in honor of its discoveror Captain William Clark of the Lewis and Clark Expedition. This so called crow is a bird about the size of the Red-shafted Flicker. The body color is a light smoky grey, the wings are black with a large white patch at the lower margin. The tail is blended in the same color scheme as the wings, the outer feathers being white, the central feathers black. The effect is a white tail with a black stripe down the center. The bill is long stout, but sharp pointed, and contrasted with the light grey head it looks black. The build of the Clark Crow is pleasingly plump, his wings are long and sharp pointed, his tail short. He is found in all mountain districts from Alaska to New Mexico and from the Rocky Mountains to the coast range. He is usually resident where found, although he practices migration to some extent, for he has been seen at Carmel during the winter months.

The Clark Crow has a harsh nasal voice. Its call is jay-like at times and at others it is crow like, with its caw, caw, caw. Besides the more common call notes the Clark Crow, like the Stellar Jay, has a large repertoire of squeals, cries and odd impersonations.

At Dingleberry, the Clark Crow spent his time in or about the White-Barked Pines, for the nut of this pine is his favorite food.

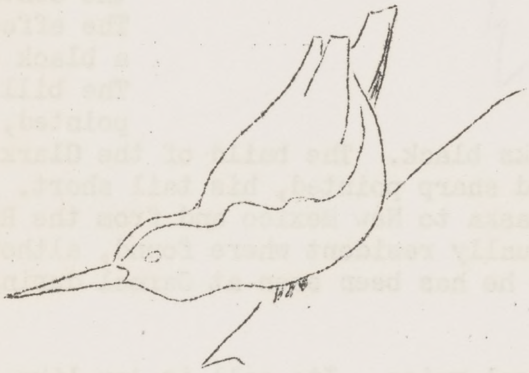
SHORT-TAILED MOUNTAIN CHICKADEE



The Chickadee is a small bird, about half the size of an english sparrow. He wears a black cap and black bib under his chin. His cheeks are white and there is a short white stripe above the eye. His back is blue grey and his under parts are light grey, almost white. He is a well-known bird for in one form or another he ranges clear across the continent. Well known as he is, however, he is better known for his call than his appearance. His common call, uttered in a harsh stringy voice seems to say "chick-a-dee-dee". His song is a lovely clear musical whistled phrase of three syllables. Often visitors ask what is the bird that says "Oh dear me". Oddly enough this simple song of the chickadee seems to catch the human ear moe often than any other bird song.

The chickadee is an omnivorous feeder which gives him a big advantage over birds of a more restricted diet. For the most part though, taking the season through, the chickadee is a foliage feeder, confining his foraging to the outer branches and leaves of the trees and shrubs. During the winter months, when insect food is scarce the chickadee may be seen extracting nuts from pine and incense cedar cones. The winter diet of nuts apparently agrees with him as he seems just as cheerful and just as active as during the spring and summer months.

SLENDER-BILLED NUTHATCH



The Slender-billed Nuthatch is the largest of the three nuthatches that live in the Sierra. He is about the size of a Junco. The top of his head and the back of his head is black. His cheeks, throat and underbody are pure white. His upper body is blue grey. As he moves about on the trunk of a tree, twisting his head from side to side, it is the flashing of his white cheeks and throat that catches the eye. Hugging close to the bark and motionless he would be inconspicuous, but he is an active bird almost continually on the move. This large nuthatch with his conspicuously flashing white cheeks is as likely to be seen as heard. The two smaller nuthatches are much more likely to be heard than seen.

Like other representatives of the nuthatch tribe the Slender-bill is at home on the tree trunks. He scurries up or down the trunk or around the larger limbs and appears to be equally at ease in any position. When the snow first melts off the ground the Slender-bill may occasionally be seen on the forest floor searching among the needles for fallen pine nuts. When he finds a nut he takes it to some tree trunk or fallen log where he can wedge it while he cracks it open with his strong bill.

HERMIT THRUSH

The Sierra Hermit Thrush is a common nesting bird along the streams that lead through the coniferous woods in the higher mountains. The Hermit Thrush appears to be about half the size of a robin. It is built along the general lines of the robin but more slender, more graceful and with longer legs in proportion to the size of its body. It is a brown bird with a light buffy breast which is marked by triangular spots of dark brown. The eye is circled by a ring which gives the bird an innocent, wide-eyed expression. His tail is reddish which contrasts with the olive-brown of the back.

The Hermit Thrush, in general appearance resembles the Russet-backed Thrush, though, the Hermit is a somewhat smaller bird and seemingly of a plumper build. The Hermit has a twitching habit which is one of the best field marks to separate him from the Russet-back. The Russet-back's tail is reddish but it blends into the color of the back.

During the first days at Dingleberry the glorious voice of the Hermit Thrush rang through the woods near commissary all day long. It lifted the hearts of all who heard it for in all nature there is not a more beautiful song.

WATER OUZEL

The Water Ouzel or Dipper, is perhaps the most interesting bird to be found in the Sierra. He is a slate grey bird about the size of a robin, but due to his very short tail he appears more plump than the robin. He is a song bird, a bird without webbed feet, who has taken to the water to earn his daily bread. And having adapted his methods to feeding in or on the water, he has no competition in his chosen field.

When the river water is low, the Water Ouzel feeds in the shallow riffles, turning over stones and leaves in search of food. During the winter months when the margin of the river is crusted over with ice, the ouzels are forced to do their fishing in the deeper water of the open river, where they swim about on the surface in the manner of phalaropes and dive with the expertness of grebes. Occasionally where ice has bridged the river they will dive, swim several yards down stream and come up to the surface below the ice bridge.

When spring brings floods to the main river the ouzel pairs move onto foaming side streams where they will renovate their nests of other years or build new nests. Ouzels build their nests in various situations but they show a strong preference for the leap of splashing water. After the nesting season is over the ouzels go higher into the mountains. Several Water Ouzels were found at Dingleberry. There were at least three pairs on the main stream, and one pair frequented the brook that flowed through the meadow above camp.

The sun shines warm, the snow melts fast
The floods of spring are here at last
Leap white water, sing oh bird
Above the flood your voice is heard

Now in the season of love his song you hear
But in winter stillness his song's more clear.

MOUNTAIN BLUEBIRD

Walking along a high meadow trail, one's eye may be caught by the flash of an azure-blue bird. That breathtaking blue can be only the Mountain Bluebird.

The Bluebird belongs to the Thrush family and in size is a little larger than a sparrow. The entire back of the male is a beautiful azure blue and the under parts are light colored. The female and young are more of a grayish blue in color.

In the nesting season a pair may be seen perched in a tree or feeding young but later in the year the family, or several families banded together, may come up to higher elevations to catch the insects that are hatching out as the season becomes warmer.

by Frances Payne

WESTERN ROBIN

The Western Robin is a common nesting bird in the mountains. In fact he is the most common bird being found in all sections up to timber line.

The Robin is a fair sized bird, ten inches long and of a rather chunky build. The body markings are slate grey above with head and tail almost black. The under surface is a rich reddish brown in the male, lighter in the female. Young birds are heavily marked on the breast with round black dots. Old males have clear yellow bills while the bill of the female is likely to be of a horn color. Markings of individual birds vary and it would be difficult to separate a light male from a dark female.

Robins do most of their singing just before daylight and just before dark. On rainy or overcast days, their songs are likely to be heard any time of day. The song of the robin is rathera mournful carol; a series of whistled notes in a minor key with a rising and falling inflection. The theme does not vary, it lacks the wild, free rolling trills of the Black-headed Grosbeaks song. Beside the song the robin has an assortment of squeals and whistles and a rather pleasing chuckle.

THE WARBLERS

The warblers are small birds, trimly built and actively alert in their feeding habits. From their general feeding habits it is safe to assume, that they feed almost entirely on insect life. Five different species of warblers were noted in the region of Dingleberry Lake. Each of the different species have different foraging areas and different tastes in vegetational associations.

The Pileolated Warbler -- is the small yellow warbler with a black cap, and fortunately for those who wish to identify the bird, the female and the young also wear the black cap in a more or less modified form. This black cap is the only contrasting color in an otherwise yellow bird -- greenish yellow above and clear yellow below.

The Pileolated warbler is a bird of the cool thickets and apparently prefers to be close to a small stream. His forage lanes lead him through willows, creek dogwood and azalea and although he feeds close to the ground he often darts out to snap a passing insect on the wing.

The Audubon Warbler -- The Audubon is is the Warbler with the five yellow spots -- one on the top of the head, one on the chin, one on the rump and one on each side of the glossy black breast. The back is bluish grey and streaked. The long appearing tail bears a wide bar of white on the under side. This is the male bird in spring. In winter he takes on the dull colors of the female and the yellow rump patch is the only conspicuous patch of color remaining.

During the summer months the audubons feed in the normal warbler manner, that is they are foliage-feeding birds, for the most part. Occasionally, though, they will practice the flycatcher art and dart into the air to take insects on the wing. During the fall and winter, Audubons add weed seed and berries to their insect diet. It is an odd sight to see an Audubon Warbler swinging on a weed stalk and picking off seeds in the manner of a goldfinch.

The Calaveras Warbler -- This Warbler's general coloration is yellow -- clear yellow below and greenish yellow above. A blue grey cap extends over the crown and down the back of the neck; the throat is clear yellow, and there are no markings whatever of either black or white. The female is similar to the male but the colors are somewhat duller. While the general coloration is yellow this warbler lacks the brilliant yellows of the Yellow and Pileolated Warblers.

At lower altitude the Calaveras Warbler shows a decided preference for oaks and maples and they feed well up in the crows of their chosen trees. At Dingleberry these warblers preferred the aspens, also occasionally the willows and White-barked Pine. Though the Calaveras Warbler feeds well up in the trees, he nests upon the ground.

During the spring, like the other warblers, Calaveras is a persistent singer. To my ears he seems to say, "witchie" "witchie" "witchie".

The California Yellow Warbler -- In general appearance, a bright yellow, clear yellow beneath and greenish yellow above, with fine reddish streaks on the breast, which can only be discerned at close range. The female and young lack the streaks and they have less of the golden brilliance of the male.

The Yellow Warblers forage in the willows and the thickets along the streams. The song of the Yellow Warbler is a rapid, rather high pitched warble or trill.

The Black-Throated Grey Warbler -- is distinctly a black and white warbler and is set apart from our other common warblers in having no conspicuous yellow markings in its color scheme. Its head, neck and throat are mostly black, but there is a clear cut white line over the eye and another from the bill running down the side of the throat. The upper surface is a dark bluish grey. The under surface is white except for beautiful black pencilings along the side of the breast. The marginal rail feathers flash white when the bird is in flight. The female and young birds are similarly marked but the black and white are not so clear cut.

At lower altitude in the Sierra the Black-Throated Grey Warbler has its own peculiar habitat. It inhabits the Chrysolepis Oak groves and oak covered talus. Near Dingleberry the Black-throated Warbler was found in White-barked Pines and shrubs on the slopes above the lake.

RED-SHAFTED FLICKER

Anyone, camping in the Sierra in open pine or fir forest, may suddenly startle into flight a bird with orange wings and a white rump patch. This is the Red-shafted Flicker, which may light in a nearby tree and utter a defiant peeah. Seen close at hand, the Flicker is larger than the Robin and has a brownish back with a white rump patch and light colored underparts with a black crescent on its breast and round black speckles lower down.

Seen in flight, the orange wings and white rump patch are very conspicuous. The male Flicker has a red stripe down either side of the head.

The Red-Shafted Flicker is a woodpecker that frequents the ground more than other woodpeckers but can still hitch its way up a tree, having two toes in front and two behind and using the stiff quills in its tail feathers as a prop.

by Frances Payne

THE WESTERN TANAGER

If a popular vote were taken, among the visitors to the mountains, the Western Tanager would undoubtedly be elected the most beautiful mountain bird.

The Western Tanager is smaller than a robin, perhaps about half way in size between the robin and the English Sparrow. The male is a beauty with a red head, black wings and tail and a clear lemon yellow body. The female is not nearly so handsome as the male but she is neat and trim and not hard to look at in her garb of greenish yellow.

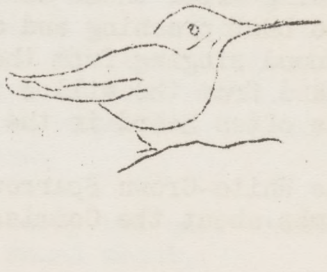
The Western Tanager is a summer visitant to the mountains and they arrive in Yosemite about the first of May. Here many build their nests and rear their young. After their young are grown, the Tanagers like many other nesting birds, often stray into the higher mountains. Oliver Kehrlein observed one of these wandering birds at Sabrina Lake July 1st and at Dingleberry he observed the White Crown Sparrows, July 2nd.

In spite of the Western Tanagers bright colors he is less apt to be seen than heard. Under normal conditions their feeding lanes lead through the foliage some distance above the ground, and as their movements are more or less deliberate, they are not nearly so conspicuous as the smaller, more active warblers. It is the often repeated "purp" call-note that attracts attention.

In bird books the Tanager is seldom given much credit as a singer, but really he should be classed with a robin and a Black-Headed Grosbeak for it is easy to confuse the songs of these three birds. As a singer, when in full voice, the Black-Headed Grosbeak easily surpasses both the Tanager and the Robin, but it is only in moments of ecstacy that the Grosbeak is in full voice. Ordinarily the Tanager as a singer rates between the Robin and the Grosbeak. There is a plaintive quality about the Robin's song that is lacking in the Tanager. To most ears the Tanager's is the most cheerful song. Anyway, the Western Tanager is a fine singerand a most beautiful bird.

RUFOUS HUMMINGBIRD

During the months of July and August the Rufous Hummingbirds are present in the high gardens along the main crest of the Sierra. The Rufous is a red hummingbird and may be distinguished from the Allen and the Black-chin Hummingbirds by his red back, the backs of the other hummers being green.



At Dingleberry he was occasionally seen about the flower gardens especially about the red pentstemon and the Indian Paint Brush.

The Cassin Purple is a little larger than the House Finch. He is a reddish bird, with brown, reddish tinged wings and tail. The crown is a brilliant crimson, whilst the breast and rump color tends towards pink. The California Purple Finch is a similar slightly smaller bird with top of head, rump, throat and breast a rich, purplish red. The contrast in the color pattern of the Cassin Purple Finch will help to separate him from the California Purple Finch. The two are frequently seen together, especially during the winter. Purple finches often rouch their bright crown feathers. The female Cassin is a plain grey-brown, streaked bird and lacks the hint of greenish tints seen in the plumage of the female California Purple Finch.

The Cassin Purple Finch was noted near Dingleberry in a White Barked pine, pecking into a cone to procure a nut.

Sierra Rosy Finch, in full plumage, has a rich brown coloration. His bill is of the large grosbeak type, dark like his feet and legs. Broad light colored bands border his dark crown. A rosy iridescence at base of tail and underbody, show especially in flight. In size he is slightly smaller than the Cassin Purple Finch.

A family of seven or eight Rosy Finches feed at the base of a rocky escarpment in a meadowy area. In feeding they take a zig-zag course, weaving this way and that among the grasses and flowers and pausing to eat the seed from a grass-head. When disturbed he says "chuck-chuck" in a throaty voice. In flight the birds often utter a clear cry remindful of the cry of Pine Siskins.

About Dingleberry, in grassy areas the Rosy Finches were frequently seen. In the morning a flock was usually seen flying up and down a crack in a rocky wall. In the morning light the rosy iridescence of the flying birds was wonderful.

The White-crowns are seldom seen more than a few feet above the ground. In the morning after their dew bath, they may be seen on the sunny side of their favorite bush preening and drying their feathers. In spring the birds are likely to be found singing from the highest perch of their low cover. They are early risers and from the willow thickets at Dingleberry the sharp cheer of their call note was often heard in the dark hour before dawn.

The White-Crown Sparrow in company with the Junco and Cassin Purple Finch ate crumbs about the Commissary at Dingleberry.

The Green-tailed Towhees are sleek and well tailored birds and while not garbed in gay or gaudy colors they are distinctly marked. Their heads are capped by a reddish brown crown patch which is charmingly conspicuous when the crown feathers are erected. A pure white throat patch is bordered by black stripes and this, too, is a conspicuous marking. Their backs are greenish, wings and tail yellowish green and in bright sunlight there is an iridescent sheen to the feathers.

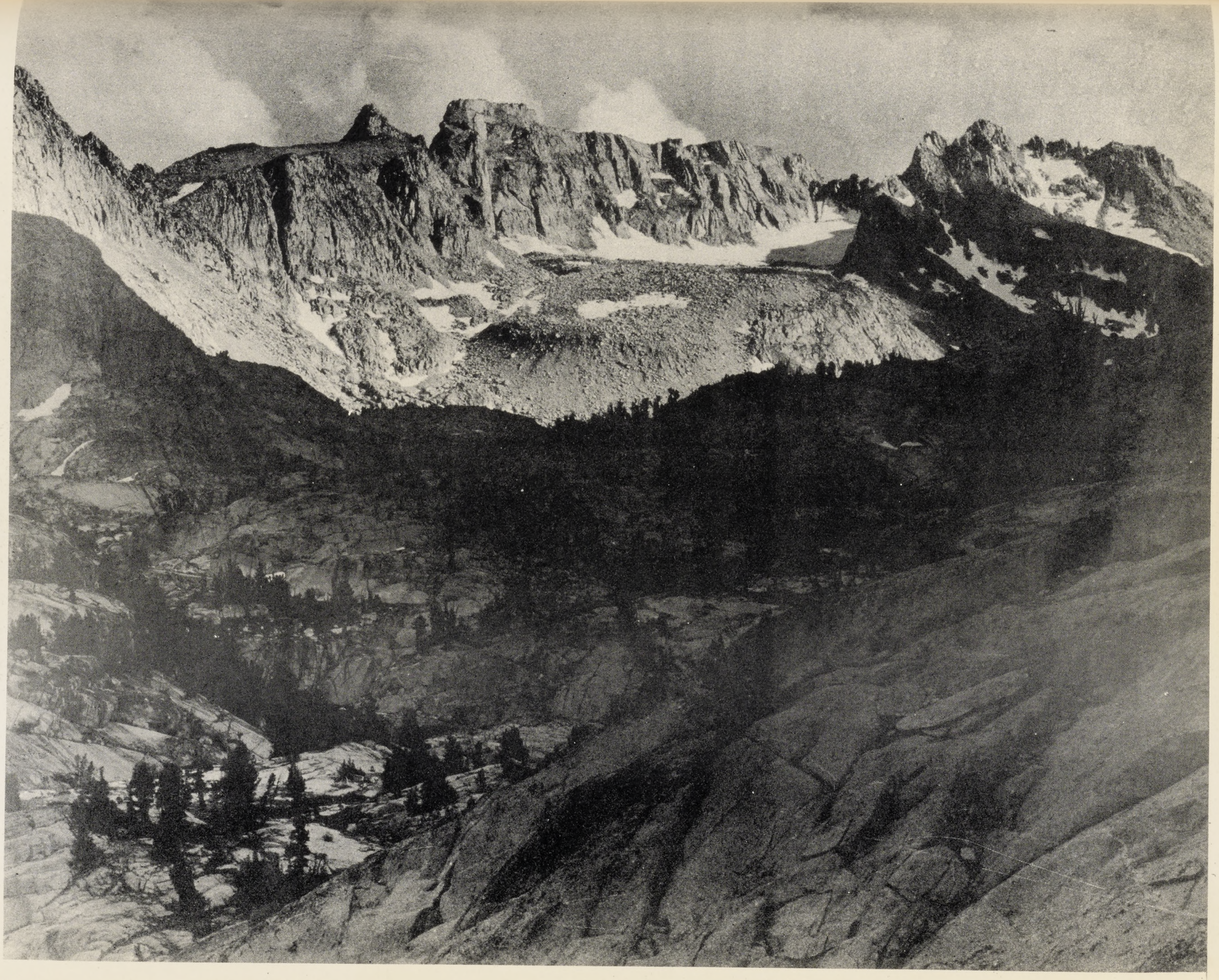
At Dingleberry several Green-tailed Towhees frequented the brushy areas, where they fed on the ground.

Green-Tailed Towhees build their nests in the low bushes and sing their songs from the topmost twigs. With short wings and tail, the Green-Tails are adept in dodging through dense brush and when seeking safety they would rather resort to dodging than to flight. When disturbed, they utter a cat-like call.

In size and general build the White-Crowned Sparrow is close to the English Sparrow. That is to say, it is a bird of medium size among the sparrows and of rather a plumpish build. The male and female are alike in markings and the crown markings are a conspicuous field mark that separates them from other sparrows. The crown is marked by seven broad stripes, three white and four black stripes alternating. The two lower black stripes are not especially conspicuous and from a front view the crown appears to be but five striped. The three white stripes meet at the back of the crown, to remind one of a white ribbon tied in a bow at the back of the head. In the immature bird the white stripes are grey and the black stripes a golden brown. The upper surface of the body is grey, streaked with brown, the undersurface of the body is grey and entirely unstreaked.. The tail is brown and two rows of white dots form a mark on the wing.

The Sierra Juncos feed on the ground and mostly in the open. He is a little bird with a glossy black head and a flash of white tail feathers. He is trim, and neatly, but not gaudily dressed. He wears a black cowl over his head which terminates precisely about his shoulders. His back is brown, his tail black with white outer feathers which flash when he hops about. His underparts are light and the sides of the chest are washed with pink. A coral pink cone shaped bill contrasts nicely with his black head.

Sierra Juncos are friendly birds and at Dingleberry not only visited the commissary, but paid daily visits to all the camps round about.



MT. POWELL & GLACIER from Grandma's Nubbin. by J. Macbride

Fortunate were those Base Campers who were able to share in on the many informative talks given by Dr. Stebbins, in camp, on hikes and climbs, and during informal conversation. We are grateful for his great generosity in giving so freely of his wide fund of knowledge.

The following article is just a sample of the valuable material with which he favored us. Through him we have all gained a more intimate acquaintance with and a wider appreciation of our natural heritage in the great outdoors. Ed.

HISTORY AND EVOLUTION OF THE PINE TREE

by G. Ledyard Stebbins, Jr.

In the region about Dingleberry Lake, as in most parts of the Sierra Nevada, the dominant trees are pines. The two species in about equal numbers are lodgepole and the albicaulis. The lodgepole pine or "tamarack" (misnamed by early settlers in the Sierra) can be recognized by its straight trunk; its pale buff bark which comes off in small, thin flakes; its short stout needles borne in clusters of two; and its small, roundish cones of which the woody, thickened cone scales bear sharp, slender prickles at their ends.

The albicaulis or white bark pine, instead of a single tall trunk may have several which often curve upwards in a low rounded clump with branches repeatedly forked near the top; its pale bark is not flaky; its softer, more slender needles are borne in groups of five; and its cone scales are more leathery in texture, and lack prickles. Few base campers, however, saw cones of the white bark pine as they are usually chewed to pieces by the strong-beaked, aggressive, and raucous Clark's crows.

Climbing above Dingleberry, we saw less and less of the lodgepoles. The white bark pine, however, climbed with us to the timber line at about 12,000 feet, in the form of low, spreading shrubs.

Observant base campers, on their hike into camp, saw three other species of pines. 1. The shores of Lake Sabrina are forested with limber pine, a straight, slender tree with long, spreading branches, turned up slightly at the ends. While its needles, in clusters of five, are indistinguishable from those of the white bark pine, its cones are longer and the cone scales are thinner. Limber pine prefer such desert mountain locations as the dry, eastern slopes which face the Owen's Valley. 2. Below Lake Sabrina the floor of Bishop Creek Canyon was lined with the sturdy, long three-needled Jeffrey pine, while many of the desert slopes adjoining this canyon were dotted with the gray-green, pyramidal shapes of the pinon or single needled pine.

Pines dominate the landscape in numerous regions of the Northern Hemisphere. They reach to timber line in the Rocky Mountains, the Alps, and other great mountain ranges. They are washed by the salt spray of the ocean on Mt. Carmel of the Holy Land as also at Carmel on the Pacific Coast of California.

They also grow on the Atlantic coast from Maine to Florida. They mingle with spruces in forming the most northerly outposts of woody vegetation in arctic North America; and with palms in the tropical vegetation of the Isle of Pines, off the coast of Cuba. Pines survive extreme drought in our southwestern deserts; and stand with their roots perpetually in water in the dank swamps of our southeastern Gulf Coast. No other type of tree is found over such a wide range of geographical regions and different habitats as is the pine.

There are no pines native to the Southern Hemisphere. But the Monterey Pine of California, transported by man to Australia and New Zealand, has flourished in these far-off southern lands even better than in its native home, and there produces large stands of marketable timber.

It is only natural that pines should attract artists, writers, and musicians and stimulate imaginative geniuses in various ways. Artists of the western world usually depict pines as tall, dark, and stately; framing vistas of jagged, snow-clad peaks, or of elk, moose, and other denizens of the forest. Oriental artists, on the other hand, focus attention on the beauty found in the gnarled, curving branches and the soft clusters of needles of pine trees. They use them as perches for gay colored birds, or as settings for the small pools and arched wooden bridges which are included in the distinctive settings for their gardens.

Writers, likewise, have usually associated pines with grandeur and solitude. Thus in Homer's Iliad two Greek warriors, when slain by the Trojan hero Aeneas, "fell like tall pine trees." And Sir Walter Scott mentions .. "the pine-trees blue, On the bold cliffs of Benvenue;" while every schoolboy is familiar with the opening line of Longfellow's Evangeline: "This is the forest primeval, the murmuring pines and the hemlocks. . ."

On the other hand, the Italian muscian Ottorino Respighi was inspired to compose his great tone poem, "The Pines of Rome," by the association which these trees had formed in his mind with the glorious past of his native city; the splendor of the Renaissance; the struggles and triumphs of the early Christians; and the tramp of Caesar's legions marching down the Appian Way. Just as the appearance and habitats of pines are diverse, so have been their impressions on men's minds.

For men with practical interests, pine trees have been of use, in many ways. The white pine of the eastern United States was one of the main sources of lumber for building our first great cities. Masts made from the taller, straighter pines supported the great white sails of the clipper ships, on their record-breaking trips from China and the Indies, with cargoes of tea, silks, and other valuable merchandize.

The primeval stands of the white pine are now practically gone, but smaller trees of this species still provide fine straight grained wood for furniture. In the west, the ponderosa or western yellow pine is the basis of the lumber industry in California and many other regions; from it are made everything from matches to telephone poles and apartment houses. More highly prized but scarcer are the sugar pine of California and the western white pine of Idaho and Washington. These two species are related to and make high grade lumber resembling that of the eastern white pine.

But lumber is only one of the products which pines give us. The wood of all pine trees is criss-crossed by a system of resin canals. From these an injured tree exudes odoriferous resin which dries on the surface of the bark. The pines of the southeastern states, which have a particularly high resin content, are regularly tapped for this liquid, which is then distilled to form turpentine and rosin. The artist painting a landscape of a pine forest must use one of the products of this forest to place his impression upon the canvas; while the violinist executing Respighi's "Pines of Rome" enriches the tones with which he extols these trees by the use of rosin derived from their cousins.

To the botanist, who likes to see plants neatly filed in groups under a series of headings and subheadings, the pines form a genus of the pine family. This family, in turn, belongs to the order of conifers, or cone-bearing trees, and to the class of gymnosperms, or naked seeded plants. Botanists recognize about 70 species of pines; this number varies somewhat according to the botanist making the classification. Thus the "lumpers" among the botanists might recognize only one species with several varieties or races such as the ponderosa and the pinon pines. On the other hand, the botanical "splitters" recognize three or four species in each group. At any rate, there are more pine species than any other in the genus of conifers. This might be expected, in view of the wide range of habitats occupied by pines.

All, except a very few, are classified into two main subdivisions, the hard pines and the soft pines. Most of the hard pines have their needles arranged in bundles of two or three, and their cone scales are hard, thick, and woody. In the soft pines, the needles are in bundles of 5, and the cone scales are thinner and more leathery in texture. At Dingleberry, the lodgepole is typical of the hard pines, and the white bark a member of the soft pine group. Two groups of Western American pines, the pinons and the foxtail pines, cannot easily be placed in either of these groups. In the pinon pines, the cone scales are leathery like those of the soft pines, but thick like those of the hard pines; and the number of needles per bundle varies from one to five. The foxtail pines have cones like those of hard pines, but needles like those of soft pines. The structure of the wood suggests that both belong with the soft rather than with the hard pines.

Western North America has the lion's share of the 70 species of pines scattered throughout the northern hemisphere. And when both number and diversity of species types are considered, California is richer in pines than is any other region of equal size. The largest pine trees in the world are the sugar pines of the central Sierra Nevada. Reaching a height of more than 200 feet, they are overtopped only by the giant Sequoias and the coast redwoods. At the other extreme, the dwarf pines found on the sand barrens of the Mendocino county coast are among the smallest of their kind in the world. This race of the lodgepole pine species contains "trees" which never grow more than three or four feet high!

The world's largest pine cones are those off the Coulter pine of our central coast ranges; a single cone of this species may weigh as much as four pounds. On the other hand, the little cones of the lodgepole pine, familiar to all base campers, are among the smallest which pines produce. Experts differ as to which are the most primitive species of pine; but the white bark, pinon, and foxtail pines, all residents of California, are among the leading candidates for this honor. At the other end, the Coulter, bishop, and lodgepole pines are generally regarded as among the end products of pine evolution. In many ways, California can be regarded as the home of pines.

Pines have a particular fascination for the student of plant evolution. In the first place, they are among the oldest of the conifers. Fossil remains of pines are found in beds of the geological period known as the Triassic, and they therefore existed two-hundred million years ago. This period was early in the evolution of the reptiles, and before the first dinosaurs had appeared upon the earth. Pines, therefore, existed throughout the age of dinosaurs, and continued to flourish as these great beasts became extinct and were replaced by the earlier mammals. They are as old in the fossil record as the redwoods, though not nearly as abundant. This does not necessarily mean, however, that pines were less common than redwoods during past ages. Redwoods are adapted to relatively moist habitats, and particularly to the river margins and flood plains in which most fossils are preserved. Pines, on the other hand, grow more often on mountain slopes and deserts, and in such places fossils are rarely formed and preserved.

Where the first pines came from and how they evolved from more primitive conifers will probably always remain a mystery, because of the lack of fossils. A safe guess, however, is that the first pines were adapted to cold deserts or steppes, similar to those regions of eastern California and Nevada now occupied by the pinon and foxtail pines. Pine needles are ideally constructed to resist drought. Their green tissue, which manufactures food for the plant, is encased in a protective armor of hard, thick-walled cells, and these in turn are coated on the outside with a heavy layer of wax. The breathing pores, or stomata, which perforate this armor are sunken into its tissue, and so designed that when water is scarce, they can be tightly closed , thus effectively sealing in the water contained in the green cells. The young buds, moreover, are protected by a system of bud scales far more numerous and complex than those found in most conifers, designed so as to protect the young, growing tissues against drought.

Following the Darwinian theory of evolution, we can best conclude that these complex adaptations were all acquired through natural selection because of their value to a plant living in a dry climate. That the climate which first saw pines was cold as well as dry is suggested by the fact that most species of this genus, and particularly the more primitive ones, live in regions which are cold, at least in winter. Since the earth's climate during the Triassic period was everywhere warmer than at present, the original home of pines was probably either in the far north or on some lofty mountain range. And the fact that North America has the most numerous, the most diverse, and the most primitive as well as the most advanced species of pines, points to our continent as the place where these plants originated.

From these facts we can guess further that the earliest pines were not noble trees but small and shrubby, like the modern white bark and pinon pines. These represent the type of pines regarded by botanists as primitive. The dry, cold regions where they may be supposed to have originated and to which they were adapted could hardly have supported luxuriant forests. Only after they had proved themselves successful in these forbidding habitats were pines able to evolve types that could compete with the more luxuriant vegetation found in more favored sites, and thus develop larger trees.

Through comparison with other types of conifers, and through study of the primitive fossils, we can reconstruct the probable way in which the peculiar arrangement of the needles of the pine came into being. The most characteristic feature of these needles is their arrangement into bundles, with a definite number of needles in each bundle. This arrangement, however, is not found in the earliest growth of pine seedlings. The first needles produced by a young pine seedling occur singly, in a spiral order, just as do the needles of spruces, firs, hemlocks, and other conifers. Furthermore, the earliest bundles of needles emerge from the notch between certain of the single, seedling needles and the stem. This is the exact position at which the branches of any tree first emerge. From this fact, and from the anatomy of the woody stub which forms the base of the bundles of needles, botanists have concluded that these bundles are actually very much reduced side branches. We might conclude, therefore, that in the ancestors of the pine each bundle was a small branch containing several needles, and in a fossil dug up on Staten Island, New York, this condition has been found. A similar condition exists in the modern species of true cedars, such as the cedar of Lebanon and the deodar. The fact that the number of needles was reduced in the evolution of pines is further evidence that they originated in dry regions.

The pine cone, likewise, probably evolved as an adaptation to drought. Its hard, woody tissues are admirably designed to protect the young seeds from drying up during their long period of growth, which usually takes two years. The efficiency of the pine cone in protecting and disseminating its seeds is evident from the fact that it has served this purpose for many millions of years, and that all of the different species of pines have produced variations chiefly in size, shape, and proportions. These variations have altered but little, or not at all, the fundamental plan of construction of the original pine cone as it was first evolved.

To Base Campers, pines, therefore, are of interest for a variety of reasons; as the living framework of our mountain scenery; as a protection against mountain storms; as the source of soft beds of needles for our sleeping bags, and of sweet scents and gentle sounds to put us to sleep; as a source of heat for our cooking and camp fires; as inspiration for artists, writers, and musicians; as supplier of food for our wild life; as providers of timber and other products; and as living things, marvellously constructed, with a long, venerable history. Pines can rightly lay first claim, above all other trees, on the attention and affections of all those who love the mountains.

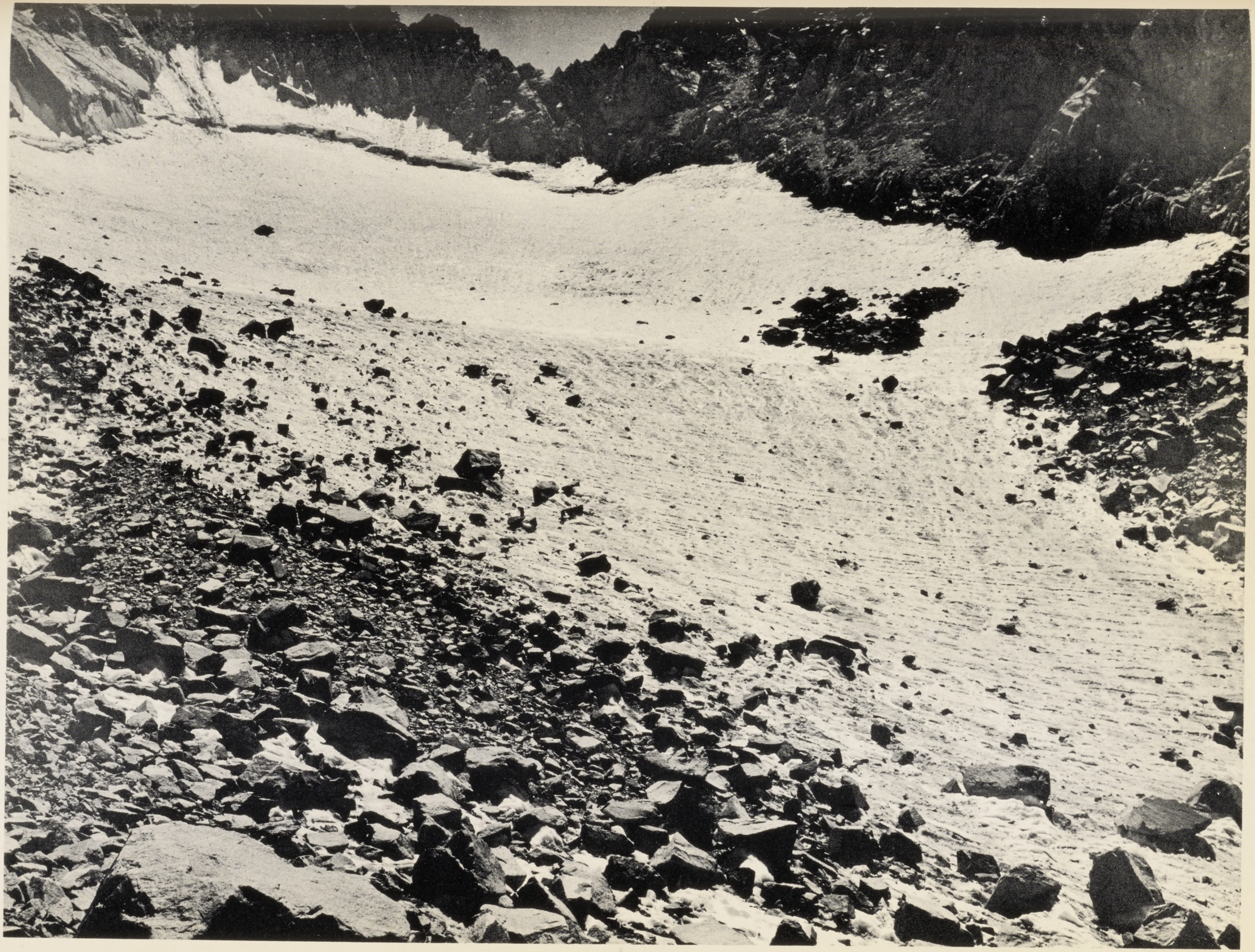
THE CLIMBERS RETURN

By Babs and Ernie Rogers

Oh, they climb over rocks with the greatest of ease,
Our darling small number of brave Ph.D.'s
They can run up a peak as fast as you please,
And never come home looking pooped.

Their actions are graceful when climbing with rope,
And crampons they use over snow -
The steeper the incline, the greater the slope,
The better these characters go-o!

Oh, Cuthbertson, Kehrlein, Oh, Evans and Jim -
Oh, Mary and Johnsons - how did you begin?
To belay and repel and climb out on that limb?
Oh, why don't you ever get pooped?



POWELL GLACIER showing 109 annual rings by James MacBride

DINGLEBERRY GLACIOLOGY

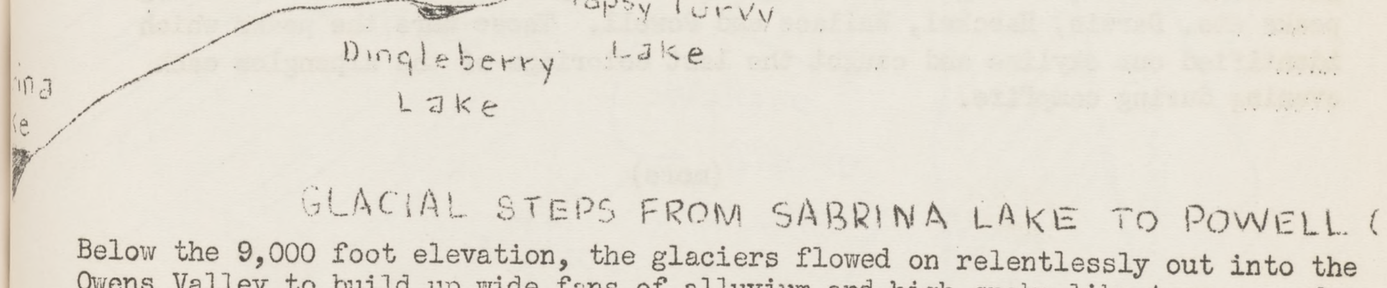
A Million Years of History

by Oliver Kehrlein

While in camp at Dingleberry Lake, it was pleasant to dream of the many changes that had been wrought in our beautiful little basin by the glaciers during the past million years. We had to limit ourselves to a million years because our little valley was only that old and because that figure marked the beginning of the Pleistocene glacial period.

It was also just about a million years ago that the Sierra Nevada, after a succession of jerky uplifts, reached its present height. All of you Base Campers caught a few glimpses of some of the remnants of the ancient landscape carried up by the uplifts, still existing on the flat tops of Mt. Darwin and along the Powell Ridge. I always get a great thrill in exploring these ancient areas as they have changed but little since they were first formed in the Eocene period some 60,000,000 years ago.

With the final uplift of the Sierra Crest, heavy glaciation started its destructive work of carving out valleys and cliffs and building up beautiful scenery for you and me to enthuse about. On the west side of the crest, the slopes were gentle and the glaciers were slow, ponderous and lengthy. Some over 80 miles long. On the east side the escarpment was abrupt. The glaciers were short and virile, falling tumultuously in cascading ice-falls to the 9,000 foot elevation. Each ice-fall indicated where the glacier catapulted over some cliff, often forming there a glacial step with a lake nestling on the tread of the step.



GLACIAL STEPS FROM SABRINA LAKE TO POWELL (

Below the 9,000 foot elevation, the glaciers flowed on relentlessly out into the Owens Valley to build up wide fans of alluvium and high snake-like terraces of morainal debris.

Schober's Pack Station, where we left our dunnage before going up to Base Camp, was situated at the foot of one of these -- a lateral moraine, some

500 feet high. The two youngsters, who almost missed dinner by climbing this moraine, found an intermediate shoulder about four-fifths of the way up, indicating that at least two periods of heavy glaciation had extended down this far to deposit their loads.

Geologists figure that there were four of these cold cycles with increased glacial activity. Some even say that during thewarm period between, the mountains may have been completely devoid of ice. Three of the periods were clearly evident all about us in Camp and in the valleys above.

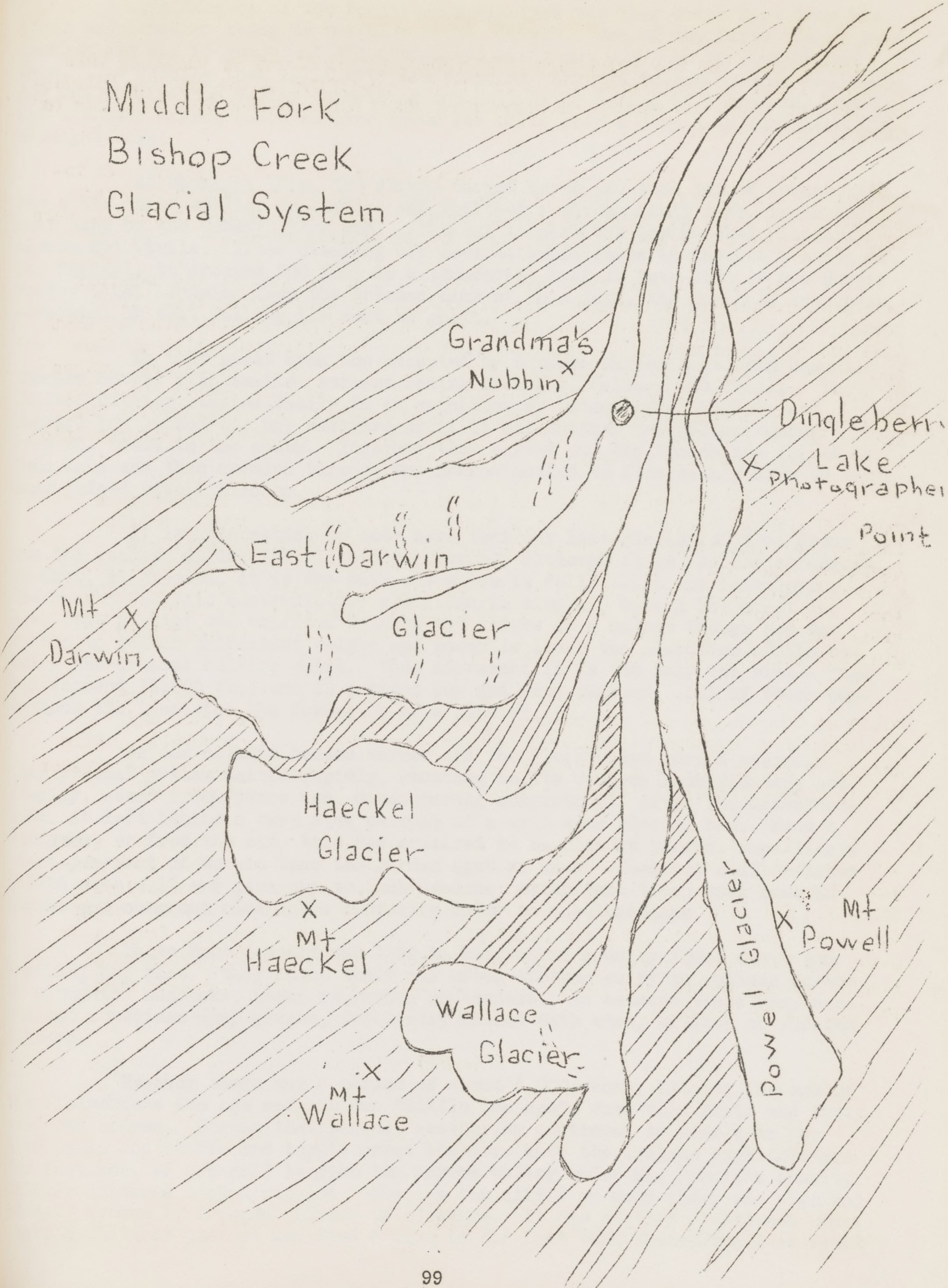
Evidence of the first period was not clear as most of the markings have been effaced by subsequent glacial action. However during that first period, the whole basin was well filled with a broad body of ice which at that time had not separated into different glaciers. The basin was still shallow and hence the ice lacked thickness. Above the ice projected occasional ridges or sharp pinnacles, like so many peninsulas and islands in a frozen sea. We, now, call these rocky islands by the quaint Eskimo name of "nunataks". The action of ice and frost has continued to sculpture these solitary features into the familiar landscape we enjoyed so much this summer.

As the destructive work of the glaciers proceeded, channels were deepened and the present form of the Bishop Creek watershed began to take form. Water sought out and eroded deeply into the cracks, fissures and faults of the rocks. Ice plucked at the side walls to broaden the valleys. Gradually the glaciers excavated their way back toward the crest, enlarging their amphitheaters and undermining the mountain headwalls. Individual rivers of ice became apparent, each with its own cluster of fountainhead glaciers nestling in cirques against the higher peaks.

The largest of the trunk glaciers was the one which covered the basin at Dingleberry Lake. The ice, here, was about 500 feet thick and stretched from Grandma's Nubbin to Photographer's Point. Incidentally, while Grandma's Nubbin had been overriden by a glacier from Lamark during the earlier cycle, Photographer's Point had always stood aloof as a lonely nunatak.

The Middle Fork basin as we saw it last summer represented the final picture produced by the fourth and last period of glaciation. The trunk glacier which polished the domes and pavements around our camp and scooped out the basin for Dingleberry Lake, was formed by the coalescence of four lesser glaciers. These small glaciers originated in amphitheaters on the four major peaks Mts. Darwin, Haeckel, Wallace and Powell. These were the peaks which identified our skyline and caught the last colorings of the alpenglow each evening during campfire.

(more)



Middle Fork
Bishop Creek
Glacial System

The largest of the four source-glaciers was that which came from the large amphitheater lying to the east of Mt. Darwin. One of the first things this glacier did was to gouge out the attenuated basin now occupied by Blue Heaven Lake. The glacier then split into two branches, the one following down the shallow but precipitous valley containing the Hell Diver series of lakes; the other and stronger branch cascaded over three ice falls into a deep hole excavated for Midnight Lake.

At Midnight Lake, the stream turned north and soon joined forces with the other three smaller ice bodies and followed a strong fault line, indicated near camp by the Women's Bath Tub. Thenext largest was the Haeckel Glacier, narrow but virile. After clearing off several small steps in the basin south of Mt. Haeckel, it dropped 800 feet as a thundering icefall into what is now Hungry Packer Lake. Judging from the intense blue of this lake, the depth of the chasm excavated by that falling ice must be great.

In that broad area now occupied by Drunken Sailor Lake, the Haeckel Glacier merged with smaller streams coming from Mts. Wallace and Powell. The Wallace Glacier started lazily in an amphitheater between Mts. Wallace and Haeckel and worked its way eastward until it met another ice stream coming from the crest to the south. Together they carved out the trench now filled by Echo Lake and then crowded through the narrow outlet to flow calmly down to where they joined Powell Glacier.

It is interesting to note here that our last glacier of this group was the weakest during the Pleistocene period, although it is now the strongest. In fact, at present, it is the only one which is fully alive and functioning. The reason for this contradictory condition is simple. During the great ice age, this glacier was confined between two ridges in a narrow trough and was unable to gather sufficient weight and power to lower the elevation of its bed below the crucial melting point. Thus atpresent it is the only one with a high bed (around 13,000 ft.) and in perfect sun and wind shadows. All of which conditions are ideal for the formation of a glacier.

As our climate became warmer and the Pleistocene period passed, this glacial system melted rapidly, receding to its various amphitheaters and finally, about 9,000 years ago, disappearing completely. After its disappearance, it left behind a very fine example of a well-worn glacial bed. From a distance, or from the air, this bed appeared to be flat and barren, more like a giant pavement of mosaic than the garden spot we knew. However, shallow lakes filled with silt and gave way to lush meadows; shrubs and trees took root in cracks and numerous blue lakes lent rich color to the landscape.

Those Base Campers who like to hike cross country found our basin anything but flat. They found their way often obstructed by an endless series of elongated hummocks, known as roches moutonnees. In between these were narrow and sometimes deep gorges, frequently filled with snow, willows or rushing streams.

However there was a period of about 5,000 years, between the end of the Pleistocene ice age and our own "little ice age", when this basin was truly arid and barren. During that period, weathering continued to tear down the high peaks and cliffs and topple great boulders into the iceless amphitheaters. For instance, we can well imagine the narrow valley under Mt. Powell's summit, thickly littered with dirt and rocks, as the cliffs on both sides are high and closely broken by frequent planes of cleavage. It was at this period and under these conditions that we can find a clue to the fact that while Powell is rated among the smaller glaciers of the Sierra, it has the longest terminal moraine. The exposed ice is less than half a mile long while the morainal system is over a mile long.

Many of the Base Campers were curious about this variation from our typical Sierra glacier which is usually broader than long, with a terminal moraine rarely measuring over a quarter of a mile through.

Those who explored Powell Glacier found its bergschrund at the 13,000 foot contour. The snow on the upper lip of the bergschrund had broken off and filled the space between the glacier and the headwall. The neve snow dropped off steeply from the bergschrund at about a 20^{0} angle for over 400 feet. From there is levelled out for about 500 feet to the first of the annual rings. These we viewed as in cross section at a steeper angle and counted (on August 6, 1950) 109 of these laminations before they became lost and indistinguishable among the table rocks and dirt at the lower end of the exposed ice. This third area measured about 1600 feet long.

The glacier also contained a small lobe on the east side of the glacier against the cliff under the summit block of Mt. Powell. Of particular interest was the fact that this lobe had a heavy terminal moraine of its own merged into the main morainal system and containing a small lake standing on old ice.

The following questions were the ones most frequently asked by the members:

1. Is there glacial ice under the mass of terminal debris?

2.. How could such a small glacier produce such a large terminal moraine?

3.. Why is the upper end of the glacier so clear of rocks when the lower mile contains so much debris?

A thorough examination of the terminal moraine does not show any positive evidence of there being ice under the mass of rocks. But we can infer that there is ice under the veneer of debris from the following facts:

a.. At the lower and northerly end of the terminal moraine, on its face, there appears a layer of ice 20 feet vertically and 150 feet horizontally. This may indicate that ice lies under the full length of the moraine.

b.. The small lake in the morainal material of the easterly lobe is standing on ice..

c. A large volume of water was flowing on the surface of the glacier in August. Practically no water was running off from the lower end of the terminal, but streams were coming from the sides of the glacier high up. We feel justified and considering that if only rocks were present in the moraine, the water would follow a natural channel down the center of the valley but is stopped by that portion of the ice which has become practically static under its insulation of rock.

d. A similar condition is evident on the long terminal moraine of Gibbs Glacier. Here the ice in the morainal mass has caved in and exposed an ice wall of 40 feet with an overlying veneer of 4 feet of rock. Parenthetically, we note that the exposed ice in the Gibbs terminal shows diagonal cracks or stress planes. These contain rocks and will aid us in answering the other two questions.

e. Similar cores of ice have been noted underlying morainal material on such other glaciers as:

Palisade Glacier, by Kehrlein, in its west lateral moraine, about 30 feet above the level of live ice.

One mile below Hotlum Glacier (Mt. Shasta) by Kehrlein, ice cores with ice caves under a jumble of old morainal mounds..

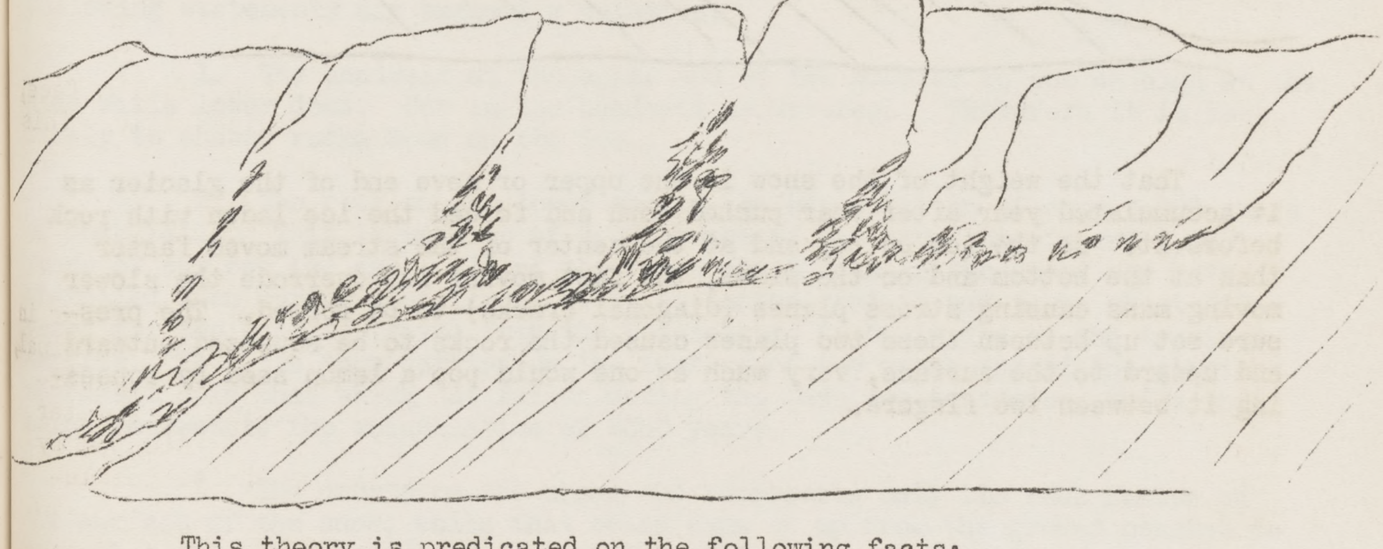
For several miles below clear ice on Whitney Glacier (Mt. Shasta) by Kehrlein and by the S. P. Survey Crew. A thin, rounded tongue of the glacier extends down the valley for several miles covered over with morainal material. At various places the ice has caved in exposing walls of stratified glacial ice 30 feet high..

Darwin Glacier; F. Matthes noted exposed ice in the terminal moraine of the easterly lobe (Ex Wallace) of this glacier.

Yosemite National Park GlacierSurvey Report for 1949, refers to several cases where ice has been found in terminal moraines. The clearest case being that of Conness Glacier where an impounded lake broke through the terminal moraine cutting a channel through the ice core. A similar breakthrough was noted by Matthes and Kehrlein on Palisade Glacier.

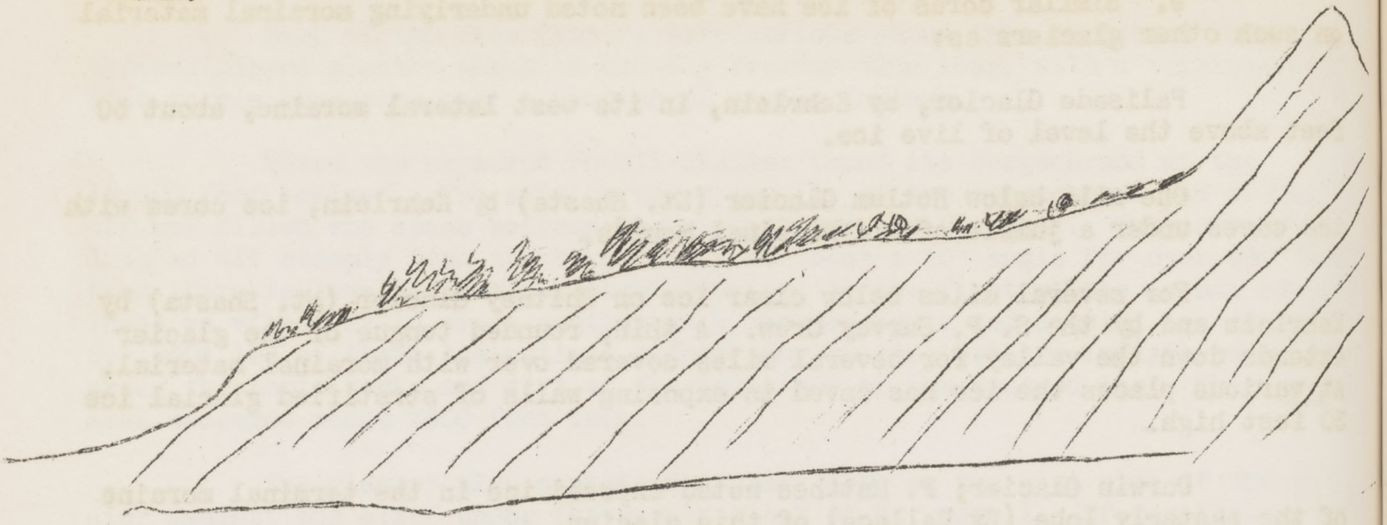
* * *

Answering the question about the disproportionate size of the terminal moraine on Powell Glacier. This is best explained by accepting the "groun moraine" theory. Through this theory is explained the great size of the terminal moraines of most of California's small glaciers and by extending the theory to the conditions surrounding Powell Glacier, we can readily see how such a small glacier could accumulate such a tremendous accumulation of detritus.

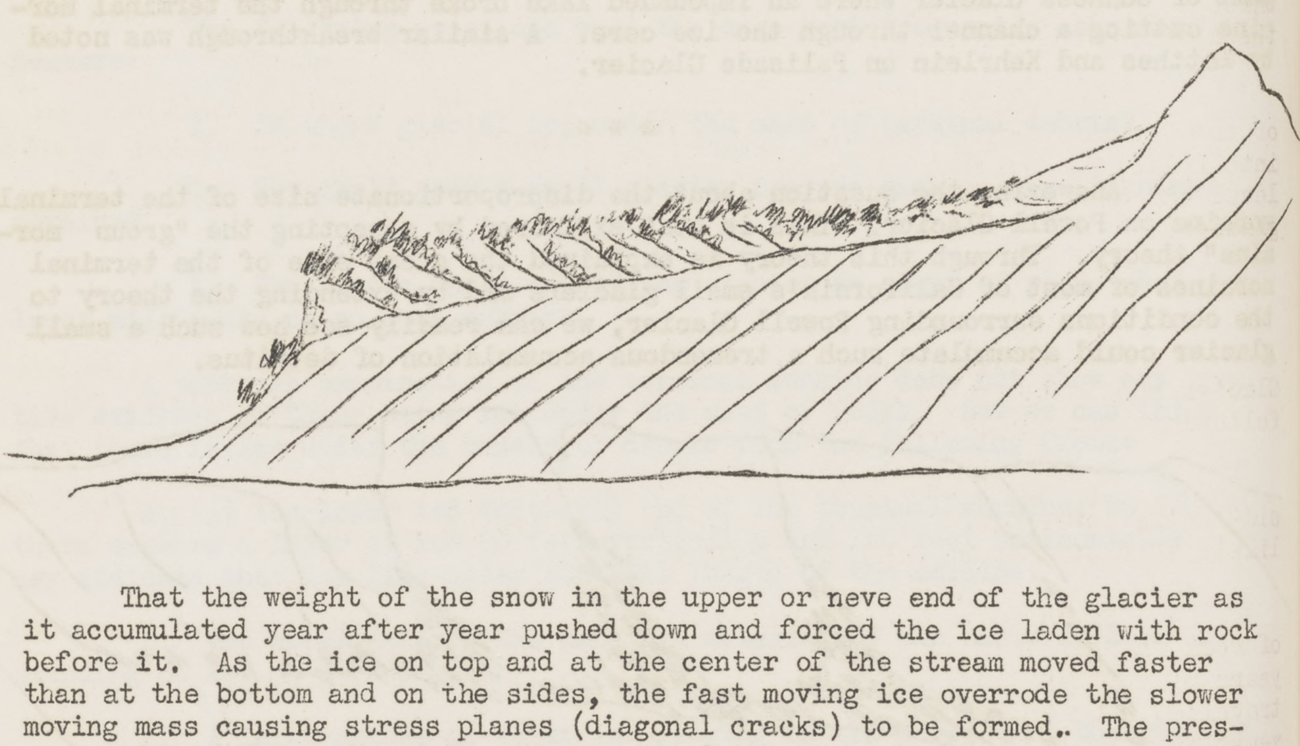


This theory is predicated on the following facts:

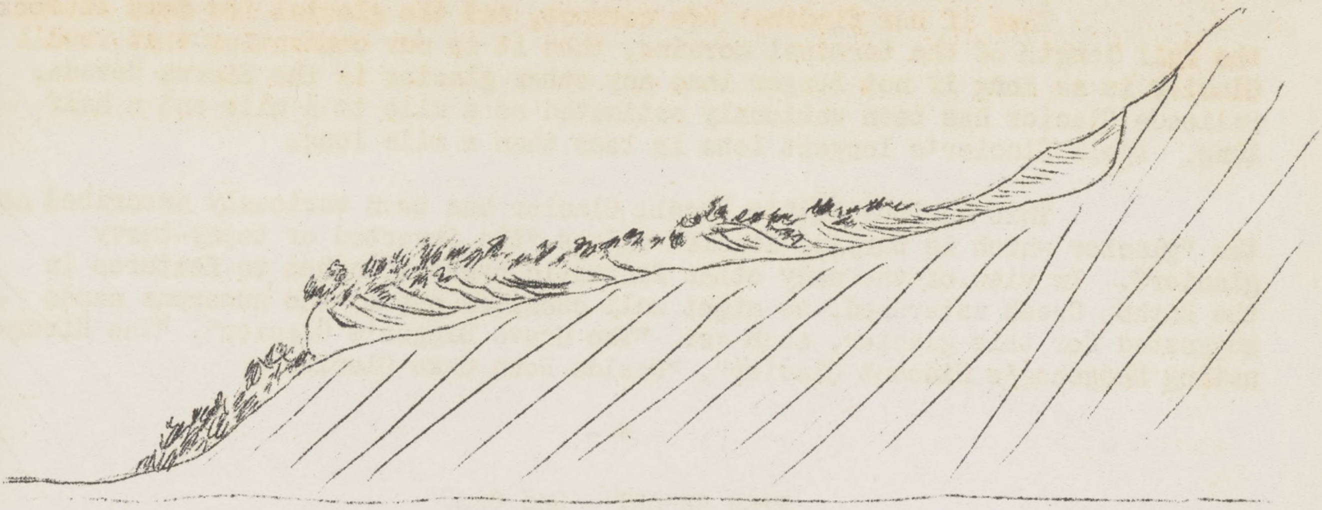
That the glacial bed was covered with rocks fallen from the surrounding cliffs and headwall during the interim period between the great and small ice ages. In the case of the Powell Basin, we feel that a great deal of rock fell during the 5000 years and that it fell the full length of the glacial basin.



That at the beginning of our "little ice age" this litter of debris was covered by a thick layer of snow. After several years this snow compacted into ice and entrapped the rock.



That the weight of the snow in the upper or neve end of the glacier as it accumulated year after year pushed down and forced the ice laden with rock before it. As the ice on top and at the center of the stream moved faster than at the bottom and on the sides, the fast moving ice overrode the slower moving mass causing stress planes (diagonal cracks) to be formed. The pressure set up between these two planes caused the rocks to be squeezed outward and upward to the surface, very much as one would pop a lemon seed by squeezing it between two fingers.



Geologist claim that during our 4000 years of the "little ice age" our glaciers have advanced vigorously at least four times, due to the heavier snow deposits during colder periods. This increase in weight at various times caused uneven levels or folds to develop in our morainal material. This accounts for three well-marked crescents in the moraine. These are particularly evident in the aerial photograph seen at the beginning of this book.

Another factor which stimulates the "holding back" of the lower end of the Powell terminal and the "gathering" or "puckering" of the morainal material into folds, is the fact that the glacial bed of Powell Glacier is relatively level and does not drop at as fast an angle as do the beds of most other Sierra glaciers.

* * *

In answering the last question as to why the lower end of the Powell Glacier should be so dirty and the upper end so clear of rock and debris, the following statements may suggest a solution:

1. The headwall at the upper end of the glacier is not as high as the side walls lower down. Nor is the headwall as vertical. Therefore it is less likely to shower rocks down on the ice.

2. The rock on the lower end is the accumulation of some 9,000 years of rock falls. This is made up of 5,000 years of the warm interim and 4,000 years of our own ice age. All of the rocks which fell in the upper end have travelled down during that time. It is estimated that it has taken about 200 years for the snow to travel from the bergschrund to beginning of the terminal moraine. Thus the rock carried on the surface of the upper end of the glacier represent only that which has fallen during the past two centuries, while that below represents the accumulation of 9000 years.

3. The debris on the upper end represents only the rock fallen on the surface of the snow, while that below came on up from the ground moraine to join that which had travelled down on top of the ice..

Thus if our findings are correct, and the glacial ice does extend the full length of the terminal moraine, then it is our contention that Powell Glacier is as long if not longer than any other glacier in the Sierra Nevada. Palisade Glacier has been variously estimated as a mile to a mile and a half long. Lyell Glacier's longest lobe is less than a mile long.

This curious little Powell Glacier has been variously described as the "glacier which is burying itself" and as "the inverted or topsy-turvy glacier". In view of the many other fantastic names attached to features in the Bishop Creek watershed, we might well consider one of the numerous names suggested for this glacier, such as: "The Grave Digger's Glacier", "The Hibernating Hedgehog's Hideout Glacier", "Upside Down Cake Glacier"..

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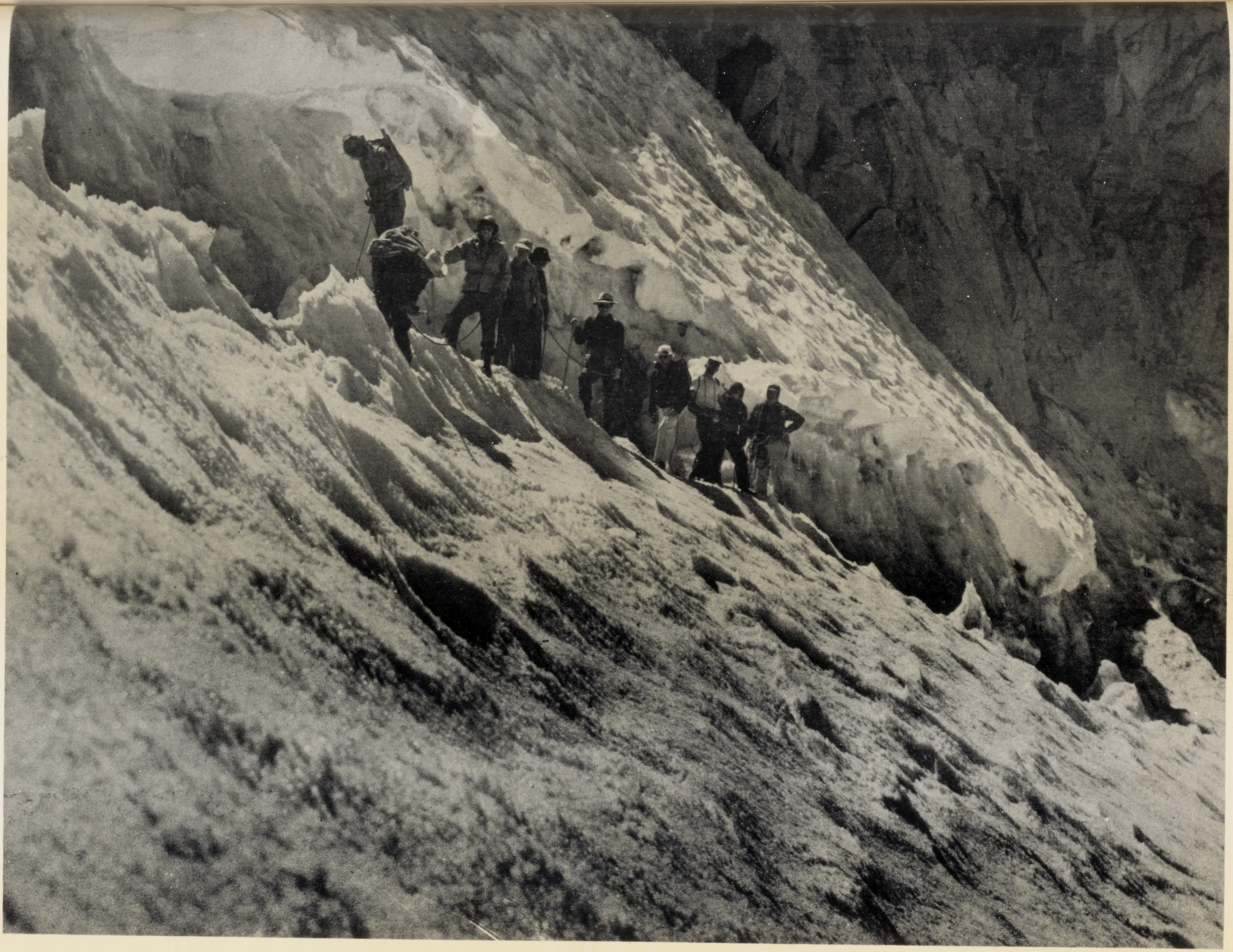
FISH REPORT - 2nd CAMP

Jim Kain (With help of Ruth)	63
Adelaide Grannatt	45
Fred Eaton	45
John Marston	35
Rolf Godon, Jr.	29
Al Gustus	25
Art Grannatt	18
Pete Friedrichsen	18
Rolf Godon, Sr.,	16
Patricia Eaton	15
Ruth Kain (without help of Jim)	15
Ernol Smith	13
Reno Cole	13
Marcella Curtis	11
Gene Serr III	10
Charlotte Youngquist	7
Gerrit Henstra	6
Nancy Bordewich	5
Fred Foulon	4
Flo Youngberg	3
Jack Froud	3
Gene Serr III	2
Jane Froud	2
Linda Youngberg	2
Jim MacBride	1
Nello Shelton	1
Franz Borncamp	1
Fritz Borncamp	1
Les Barron	1



NEVE & BERGSCHRUND ON POWELL GLACIER

by Oliver Kehrlein

No matter when or where we stopped to rest, breathe, or eat, Dr. Stebbins always had some enlightening information to impart about the plants and conditions about us. Here is a splendid example. Ed.

THE MYSTERY OF RING FORMING PLANTS

by G. Ledyard Stebbins, Jr.

Among the conspicuous features of the vegetation near Base Camp were plants growing in the form of rings. The observant Base Camper, crossing the rocks from his camp site to Commissary, would notice in the gravelly depressions between the glaciated ledges rings of grasses or grass-like plants. Sometimes these were completely circular, and in other places there were series of semicircles, always pointing downhill. The botanist usually identified these ring forming plants as the "bear grass" sedge (_Carex_ _exserta_), the Brewer's reed grass (_Calamagrostis_ _Breweri_), or as a species of rush (_Juncus_ _sp._). Occasional rings were formed by the little club moss or _Selaginella._

The explanation of these rings lies in the way in which these hardy plants adapt themselves to the climatic rhythm of the high Sierra. Looking closely at a ring of Brewer's reed grass, we find that the youngest, actively growing shoots are all found on the outside of the ring, and are growing outward from the center, making the ring larger. The inner edge of the ring consists of the earliest leaves formed during the present season of growth. If we now dig into the ground just inside this inner edge, we find old growth; dead leaves and stems which were formed last year. Still farther inward this old growth shows more and more obvious signs of decay, until at the center of the older rings no sign of grass is to be seen.

From these observations, we can conclude that each ring represents a single plant. The seed which formed this plant first sprouted in the position of the center of the ring, and produced a small seedling. During the first year of its growth, this seedling probably consisted of two or three small green shoots raised above the ground and held together by a small underground stem. In the Brewer's reed grass, the green shoots formed each summer die with the autumn frosts, leaving only the underground stems to live through the winter. When the grass starts growing again in spring, these stems send out shoots which radiate outward from the old growth and make a small ring of green grass. Each season's growth widens the ring, increasing the amount of dead material in its center. Therefore, the larger the ring, the older the plant.

If we knew exactly how much each plant of a particular species grows each season, we could estimate the age of each ring. Such estimates are hard to make in the case of Brewer's reed grass, which dies back each autumn. But in the case of the Selaginella, each green shoot lives for three or four years, and one can get some idea of how much the plant has grown in the year during which the observations are being made by measuring the amount of fresh, new growth which has grown out of the green branches formed last year. Although the amount of growth made by a plant probably varies greatly from one season to the next, one can get a rough estimate of the age of a ring by dividing its total diameter by the width of the band of growth formed during the present year. Such computations, made on a ring of Selaginella, about a foot in diameter, led to the conclusion that it was at least thirty to forty years old. There is good reason to believe, therefore, that most of the rings found around Base Camp were anywhere from ten to a hundred years old.

Little or no reference to ring forming plants will be found in botanical literature except for the "fairy rings" formed by mushrooms. These rings are formed in about the same way as the rings of grass-like plants found around Base Camp. When a fungus spore germinates in the soil of a lawn or field, it sends out tiny living threads in every direction. For several months or even years, these threads live entirely below the ground, feeding on decaying leaf mold. During favorable periods of moisture and temperature, the outermost of them send up the reproductive structures which we know as mushrooms. Like the rings of Brewer's reed grass, each ring of mushrooms belongs to a single plant, and the different mushrooms are connected to each other by slender underground threads.

Perfect rings like those found in the high Sierra Nevada have not often been described by botanists, probably because they are rather rare phenomena. Many grasses and similar plants resemble the Sierran ones in spreading by means of horizontal underground stems, and some of them may persist in this manner for hundreds of years. But perfect rings are formed only when three other conditions are fulfilled. In the first place, growth must take place, year after year, at an equal rate in all directions. Secondly, the old shoots must die back at an equal rate each year. Thirdly, the ring cannot be easily detected unless the plant is growing by itself, separated from other plants.

In most lowland areas, these conditions do not prevail, as each plant of grass is growing in close association with many other plants of various species. If a seed sprouts in an ordinary lawn or field, the young seedling is hemmed in by a host of other seedlings and adult plants. If it survives at all, it grows not equally in all directions, but along the path of least resistance, perhaps in a small opening between two adjoining plants, or maybe on top of some older plant which is beginning to die. Its form is therefore irregular from the start. Furthermore, as its old shoots die back, they are immediately covered by the young growth of more vigorous plants, and so the actual shape of any sod-forming plant is difficult to make out. The shapes which we can easily recognize are those of relatively tall growing plants like bunch grasses. These, however, do not form rings because they lack horizontal underground stems. Their new shoots grow only upward, and in about the same position as the old ones.

In the high Sierra, conditions for plant growth are particularly severe in the dry, gravelly areas in which these rings are found. Not only is the growing season very short, and subjected to periodic frosts (Base Campers became well aware of this latter fact!) but in addition water becomes scarce toward the middle of the dry summer. Furthermore, the gravelly or sandy soil produced by the weathering of the hard granite is rather sterile, as the slow rate of decay at these high altitudes prevents it from being enriched by natural fertilizer from dead plants and animals, as is the case at lower altitudes and in moister climates. Therefore, only a very few seeds of perennial plants ever germinate in these spots and form seedlings which are strong enough to survive the winter. Each successful plant, therefore, is able to grow freely in all directions through the loose soil, and its dead remains are rarely covered by the growth of other plants.

The scarcity of beautiful flowers on the dry slopes of the high Sierra prove disappointing in contrast to the slopes of similar mountain ranges elsewhere. Sierran mountaineers must pay this price for the clear, sunshiny weather which they enjoy nearly all summer long (Base Campers have probably already forgotten the exceptions to this rule which they experienced). But the curious, fascinating rings which the hardy Sierran plants form partly make up for this lack in beauty.

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NO MORE MISERY

The following parody on Dean's perennial lament was sung progressively each night by commissary:

__*__ more days and we'll be free
From this place of misery
No more burns and no more cuts
No more feeding hungry guts
No more cooking in a can
No more flavoring soup with sand
I'm going to eat a hardy meal
Served by a gal with sex appeal.

No more chopping down old trees
No more backache if you please
No more smoky stoves to stoke
All my work goes up in smoke.
No more working like a dog
Cutting through a two foot log
No more knots to split or saw
I'll cook with gas, ha ha ha haw.

No more chickie pail for us
No more garbage, no more muss
No more trays to slop and clean
No more dirt that's what we mean.
No more suds in a wash tub
No more pots for me to scrub
No more walloping for me
Pyrex and 'lectricity.

No more fractures on a peak
No more feet that fume and reek
No more doctoring on the trail
No more washing in a pail
No more nursing in a tent
No more hikers bruised or bent
In the city we will be
Back to the old germ theory.

*- Number changed each evening as the
fateful last day approached.

POWELL BERGSCHRUND

by Oliver Kehrlein

MT. THOMPSON (13,494 ft.). Summit: highest point on Thompson Ridge is a turretted block shaped like an ancient castle and set back from the slanting roof-like plateau, east of the glacier. Route: cross the southerly end of the glacier, ascent it (glare ice during summer) to notch south of summit massif. Contour to chute filled with a white intrusion and follow this up to summit plateau, thence to summit block. Thompson Glacier can be approached either from Baboon and Sunset Lakes or through notch from the Powell watershed. Climbed on July 24, 1950 by Morgan Cuthbertson, James Koontz and Wm. Evans. 2nd class rock work and glare ice.

MT. POWELL (13,361 ft.). Summit: highest point on flat, squared mass, middle of Powell Ridge. ASME medal found on summit, scratched on reversed, indicated that Walter Huber and James Rennie made the first ascent on August 1, 1925. Routes:

A. Up series of cracks on west face of mountain just south of summit block. Climbed on July 22, 1950 by James Koontz, Wm. Evans and Rolf Godon Jr.; and on August 11, 1950 by James Koontz, Maxine Steineke, Marian Steineke and Alice Dayton. 4th class.

Route B. Up scree chute north of summit block, drop slightly and contour across upper end of Thompson Glacier (glare ice in summer) and ascend an ice and scree chute to south of summit block, thence along summit plateau to highest point at north end. South summit is lower. Climbed on July 25, 1950 by James Koontz, Gene Serr II, Norman Clyde and O. Kehrlein. Also on August 11, 1950 climbed by Ledyard Stebbins, Ben Mason, Robert Owen, Rolf Godon, Gerda Godon, Endy Hanson and Reginald Craig. 2nd class with ice and snow.

MT. WALLACE (13,328 ft.) triangular summit on crest one half mile east of Mt. Haeckel and one half mile north of Mt. Fiske. Approach from hanging valley running west from upper end of Echo Lake. Summit can be climbed by scree chute or on rocks anywhere along its northern face, or along west arete from saddle between Wallace and Haeckel. Climbed on July 20, 1950 by James Koontz, Richard Johnson, Daisy Johnson, Mary Galton and Wm. Evans.. Climbed on August 3, 1950 by James Koontz, Ben Mason, Rolf Godon, Endy Hanson, John Marston, Grace Marston, Morley Marston, Maxine Steineke, Marian Steineke, Alice Dayton, Fred Eaton, Wm. Wallace, Reginald Craig, Alden Hilton, Sam French, Gene Serr II, Gene Serr III, Norman Clyde and O. Kehrlein.

MT. HAECKEL (13,422 ft.). Double pointed peak on crest one mile southeast of Mt. Darwin, one half mile north of Mt. Fiske.

Route A. Up hanging valley running west from south end of Echo Lake to saddle between Mts. Wallace and Haeckel thence up east arete to summit, keeping to north side until almost at summit. Climbed on July 20, 1950 by James Koontz, Richard Johnson, Daisy Johnson, Mary Galton and Wm. Evans. Climbed on August 3, 1950 making a traverse by descending via Route C, described below: James Koontz, Ben Mason, Rolf Godon, Endy Hanson, John Marston, Grace Marston, Morley Marston, Maxine Steineke, Marian Steineke, Alice Dayton, Fred Eaton, Wm. Wallace, Reginald Craig, Alden Hilton, Sam French, Gene Serr II, Gene Serr III, Norman Clyde and O. Kehrlein.

Route B. Up valley above Hungry Packer Lake to beginning (east end) of Haeckel Glacier, cross snow fields (glare ice in late summer) to notch east of summit-mass in glacial cirque on its east face, contour above ice up to Route A.

Route C. Same as above to Haeckel Glacier, but continue to west end of glacier and ascend over ice to west shoulder to scree chute on its west face. Up this chute to summit arete. This route was followed by second (above) party for their traverse and descent.

MT. DARWIN (13,841 ft.). Square flat top and highest summit on crest surrounding Bishop Basin. Route via Darwin Glacier from Sabrina Basin can be approached through a scree chute and notch in the southeast buttress above Blue Heaven Lake. Thence contour across talus to glacier, cross south lobe to long tongue of ice which extends almost to summit plateau. This icy tongue can be passed by climbing the rock buttress to the right (west). Here loose rock and several 4th class pitches may be encountered. From the summit plateau the final pinnacle can be climbed by an exposed ledge (belay suggested) and some 3rd class rock work.

Climbed on August 5 by James Koontz, Maxine Steineke, Marian Steineke, and Alice Dayton. Climbed on August 9, 1950 by James Koontz, Endy Hanson, Ledyard Stebbins, Edith Stebbins, Rolf Godon Jr., and O. Kehrlein.

GRANDMA'S NUBBIN (11,400 ft.) a prominent nunatak west of Dingleberry Lake, overlooking Bottleneck Lake.

Approached by ducked trail to notch south of summit. Thence up a diagonal chimney blocked by a chalkstone, westerly along a series of ledges, up a sloping crack to a broad terrace which opens onto the west face, thence up a series of cracks to the summit.

On July 18, 1950 -- 73 members of Base Camp climbed the Nubbin and on August 1, 1950 -- 71 members made the ascent.

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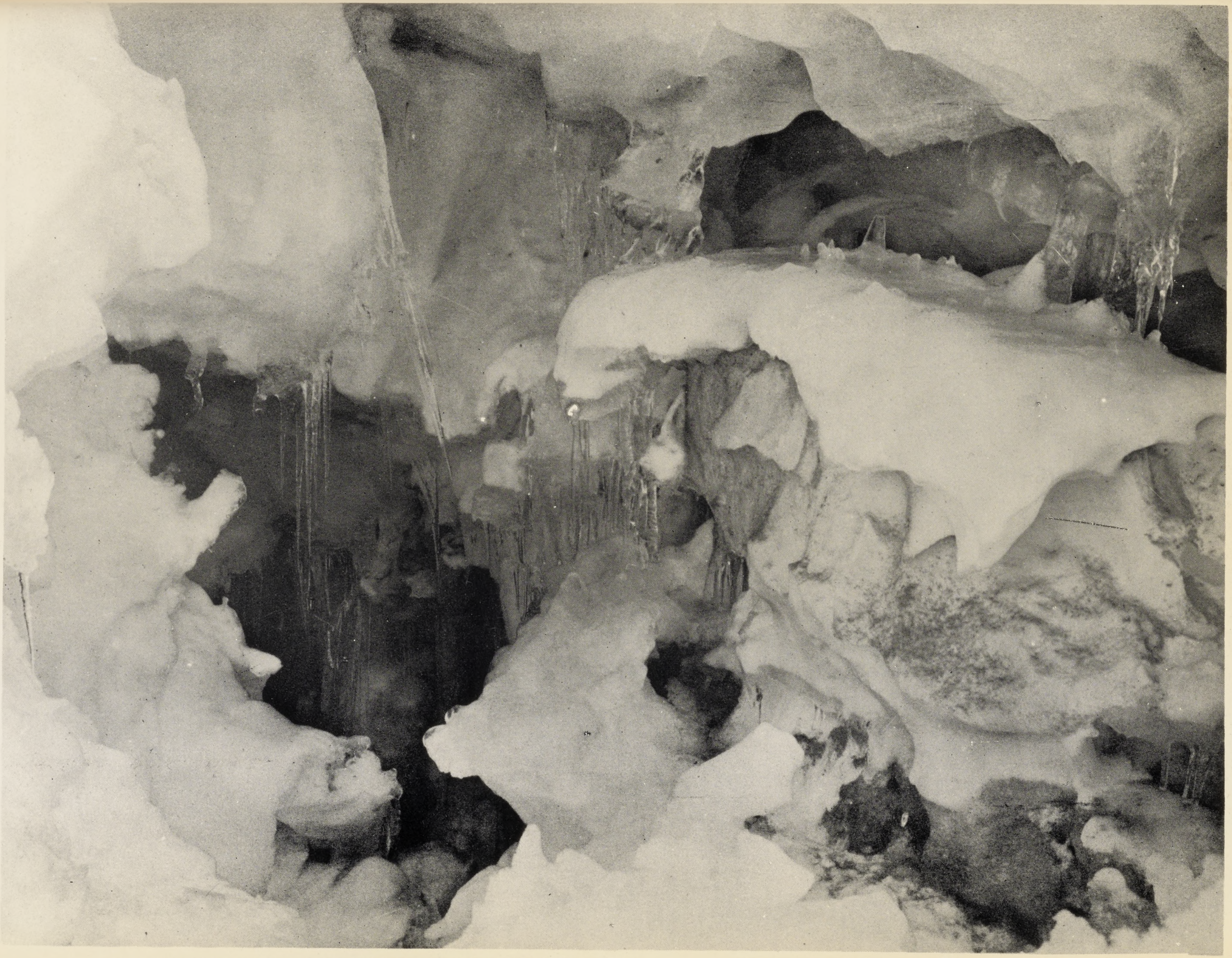


GROTTO IN POWELL'S BERGSCHRUND Home of the Glamaids

THIS IS SNAKE COUNTRY.

The following precautions should be observed by persons working in or traveling through this portion of the country. The Rattlesnake is the chief poisonous snake in this area. There are several varieties such as the Pacific, Panamint, "Diamond Back", and the Horned or "Sidewinder".

With the approach of warm weather the snakes leave their dens in the rocky area to seek other shelter as well as food and water. Under these conditions they are to be found in and around rock piles, shrubs, construction material and similar protection. With the approach of evening they are likely to be found roaming in search of food.

For your protection observe these simple rules:

1. Use caution in climbing over or around rocks and rock piles. Snakes like to sun or hide in such places.

2. Avoid placing hands out of the line of vision.

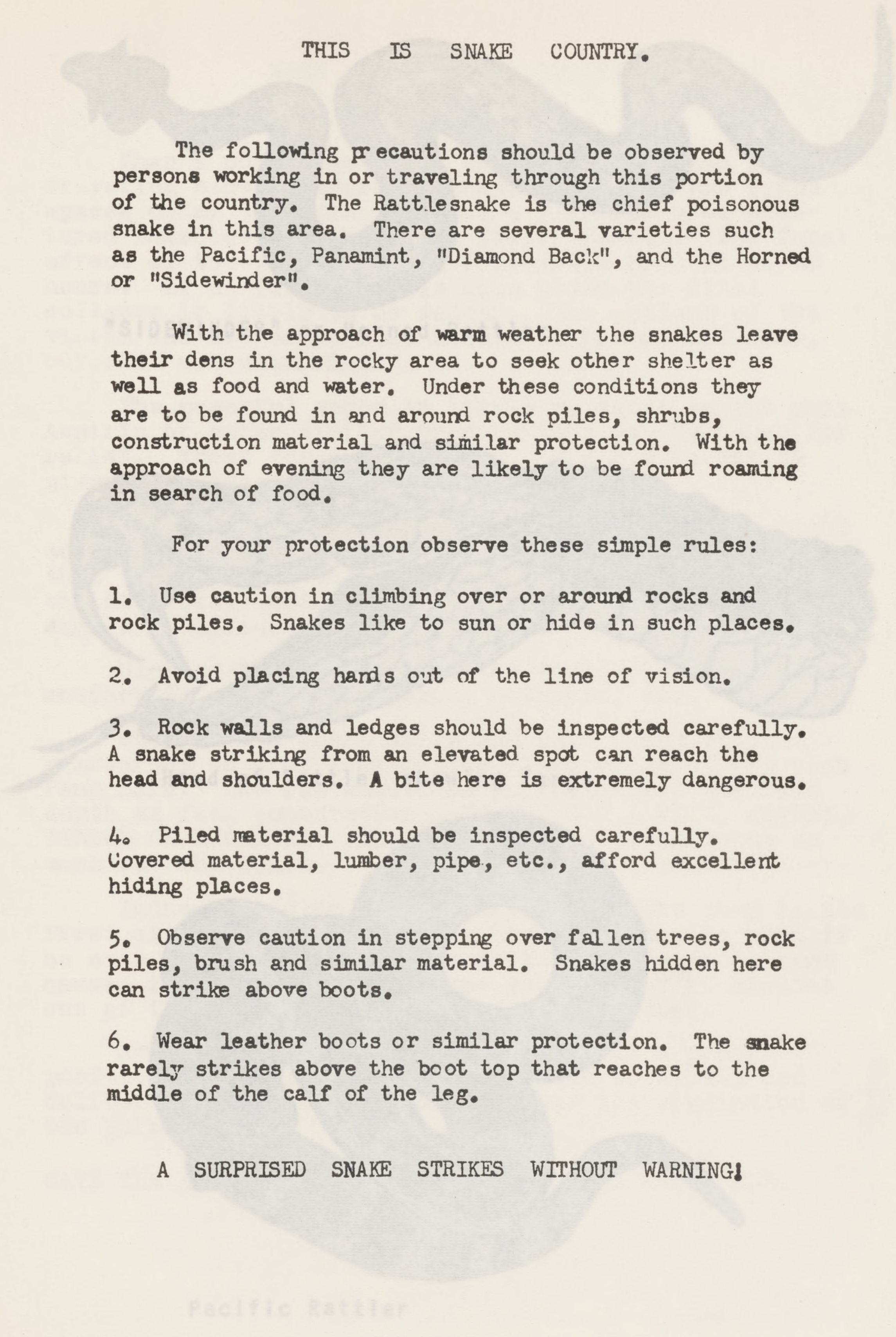
3. Rock walls and ledges should be inspected carefully. A snake striking from an elevated spot can reach the head and shoulders. A bite here is extremely dangerous.

4. Piled material should be inspected carefully. Covered material, lumber, pipe, etc., afford excellent hiding places.

5. Observe caution in stepping over fallen trees, rock piles, brush and similar material. Snakes hidden here can strike above boots.

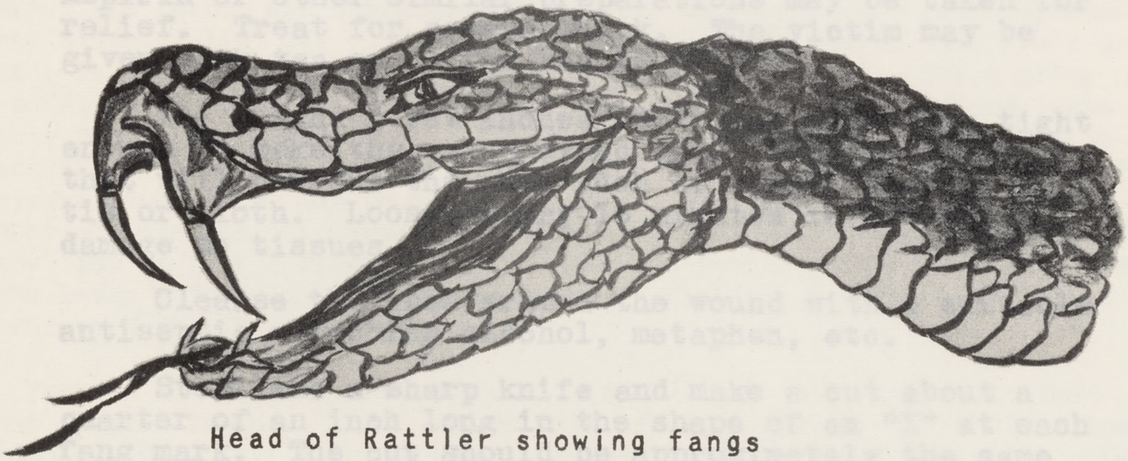
6. Wear leather boots or similar protection. The snake rarely strikes above the boot top that reaches to the middle of the calf of the leg.

A SURPRISED SNAKE STRIKES WITHOUT WARNING!

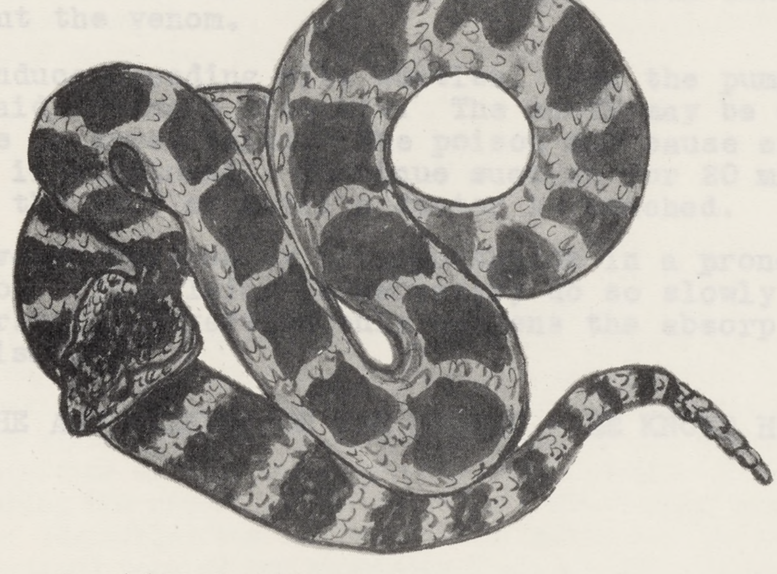


Pacific Rattler

"SIDEWINDER" or Horned Rattler



Head of Rattler showing fangs



Pacific Rattler

WHEN THE SNAKE STRIKES

When a poisonous snake strikes, the venom starts traveling slowly toward the heart, through the lymph spaces under the skin. Unless a vein has been punctured immediate death should not be feared. The fatal effect of the poison is not felt until from 24 to 48 hours. If no first aid has been given the final collapse is likely to be sudden. The actions of the victim and his companions should be prompt and sure, but calm and unhurried.

The powerful venom is likely to cause severe pain. Aspirin or other similar preparations may be taken for relief. Treat for severe shock. The victim may be given weak tea or coffee but NO WHISKEY.

Tie a band a few inches above the fang mark tight enough to make the veins stand out. Use any material that will not cut the skin such as rubber tubing, belt, tie or cloth. Loosen every 15 minutes to prevent damage to tissues.

Cleanse the area around the wound with a suitable antiseptic - rubbing alcohol, metaphen, etc.

Sterilize a sharp knife and make a cut about a quarter of an inch long in the shape of an "X" at each fang mark. The cut should be approximately the same depth as fang penetration. DO NOT CUT A VEIN, ARTERY, TENDON OR LIGAMENT. The blood-tinged serum tends to wash out the venom.

Induce bleeding with suction. Use the pump in the first aid or snake bite kit. The mouth may be used if no cuts or sores exist. The poison may cause extreme nausea if swallowed. Continue suction for 20 minutes out of the hour or until a doctor is reached.

Avoid exertion by transportation in a prone position. If walking is necessary do so slowly and deliberately. Exertion only hastens the absorption of the poison.

SAVE THE ANTI-VENOM FOR THE DOCTOR - HE KNOWS HOW.

BASE CAMP BOTANY*

By

Peter H. Raven

The botanical collections of the Sierra Club Base Camp outing of 1950 were made over an area which in its size and diversity compares favorably with the other Base Camp surveys. The bulk of the collections were obtained on the eastern side of the Sierra Nevada in Inyo County, while a few were obtained just over the crest in Fresno County (all those labeled Mt. Powell, summit, or Mt. Darwin, summit). The collections were obtained at elevations from 8800 ft. to about 13500 ft. Explorations extended from Coyote Ridge (12200 ft.) in the east, westward in the vicinity of Lake Sabrina, and southward up the Bishop Creek drainage (Middle Fork) to the vicinity of Mts. Haeckel, Powell, and Darwin on the crest of the Sierra.

In all, 506 collections were made of 337 species, subspecies, varieties, intermediate forms, and hybrids, and to these were added one species found on Coyote Ridge in 1947 (J. T. Howell) and 42 species of plants which were observed, in order to make the list more complete and useful. These bring the total to 380 plants. This is about the size of other Base Camp lists made in this region (cf. those of 1946 and 1947), but a number of specimens obtained this year are especially noteworthy for several various reasons. The specimens cited below may be consulted at the Herbarium of the California Academy of Sciences, San Francisco, with the exception of the one indicated in the list as in the University of California Herbarium exclusively. Most of the Raven & Stebbins collections may be consulted at the University of California Herbarium, Berkeley.

Perhaps the most interesting plants of the 1950 Base Camp were the desert species found at the northern edge of Coyote Ridge, at an elevation of 9600 to 10000 ft. Probably the outstanding achievement of the 1950 Base Camp was the collection of the grass Sporobolus cryptandrus, which proved to be new to California. More than twenty of the plants collected this year are new to the Base Camp lists. Under the following headings the most noteworthy of the 1950 Base Camp plants may be found:

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*This year, while I deserted the Base Camp in order to do some needed botanical exploration in the southern Sierra Nevada around Olancha Peak, it was the Camp's good fortune to have expert botanical attention, both amateur and professional, and the present Base Camp Botany attests the thoroughness with which the region was explored. To Enid Michael, N. Floy Bracelin, and Frances Payne during the first period, and to Ledyard Stebbins and Peter Raven during the second period, we should be grateful for assembling a collection which contains so many rare and noteworthy plants. Peter took charge of preparing the report and he has done a thoroughly competent and scholarly job of organizing the complex mass of material. As an intensive study of a restricted part of our mountains that has been little known until now, his fine work will prove one of the most valuable and outstanding of the Base Camp Botanies.--John Thomas Howell.

1. Rare plants endemic to the Sierra Nevada: Carex tahoensis, Potentilla gracilis var. Elmeri, Potentilla purpurascens var. Congdonis, Lupinus Stinchfieldiae, Lomatium Torreyi, Swertia puberulenta, Gilia latiflora var. cana, Aplopappus eximius ssp. Peirsonii.

2. Rare plants endemic to the Sierra and the mountains of Southern California: Agrostis lepida, Penstemon Rothrockii, Nama Rothrockii, Juncus macrandrus.

3. Notable plants of the California deserts or the Great Basin: Sporobolus cryptandrus, Oxytheca dendroidea, Streptanthus pilosus, Sphaeralcea ambigua var. monticola, Phacelia bicolor, Opuntia erinacea, Cordylanthus Kingii, Galium Munzii, Lygodesmia spinosa.

4. Widely distributed plants, rare in the Sierra: Adiantum pedatum var. aleuticum, Isoetes occidentalis, Festuca Kingii, Oryzopsis Bloomeri, Poa Lettermanii, Poa palustris, Salix monica, Eriogonum caespitosum, Draba praealta, Saxifraga debilis, Epilobium angustifolium x E. latifolium, Cryptantha Watsonii, Cordylanthus Kingii, Artemisia Dracunculus, Senecio serra.

5. A few altitudinal records: Stellaria longipes at 11200 ft. (8500 ft. acc. to Jepson); Mentzelia congesta at 10000 ft. (9000 ft. acc. to Jepson); Mentzelia laevicaulis at 10000 ft. (7000 ft. acc. to Jepson); Helenium Hoopesii at 11300 ft. (9500 ft. acc. to Jepson); Senecio serra at 9000 ft. (6600 ft. acc. to Jepson).

6. Weeds, rare in the southern Sierra: Festuca elatior var. arundinacea, Phleum pratense, Verbascum Thapsus.

7. Rare plants found in the White Mountains and in the Sierra: Potentilla lycopodioides var. scandularis, Potentilla pennsylvanica var. strigosa, Potentilla pseudosericea, Oxytropis Parryi, Oxytropis viscida, Cryptantha glomeriflora, Antennaria scabra.

In the latter part of the 19th century, the Lake Sabrina region was explored by two botanists: M. E. Jones and A. Davidson. Several plants were described from their collections. The South Lake Basin, however, has been somewhat better explored. Davidson collected the type of Swertia puberulenta at South Lake, and Katherine Brandegee did extensive botanizing at Andrew's Camp and apparently above, on Coyote Ridge, but her collections were unfortunately all labeled simply Andrew's Camp. More recently Heller collected up the Bishop Creek as far as McGee Meadows. Other collectors include Hall & Chandler, Shockley, and C. P. Smith. Yet more recently F. W. Peirson, best known for his work in the Rock Creek drainage, has collected near Green Lake and Dr. Hans Leschke has visited Table Mountain from Lake Sabrina, and Coyote Ridge from the Green Lake area. On the 1947 Base Camp, J. T. Howell visited Coyote Ridge by way of the Baker Lakes and a spur of the Inconsolable Range.

The following persons made important contributions to the collection of Base Camp plants: Mrs. H. P. "Bracie" Bracelin, 1st Period; Enid Michael, 1st Period to August 7; and Prof. G. L. "Led" Stebbins, Jr., and the writer, 2nd Period. For the co-operation of the entire camp, we are very grateful, and especially to the following, who contributed specimens: Oliver Kehrlein, Frances Payne, and Marian Rey. Collections made by Enid Michael are indicated by (M) and a B precedes the field numbers of Mrs. Bracelin. All other numbers are those of Raven & Stebbins.

For help in preparing this list, reading manuscript, and identifying specimens, the writer is grateful to Prof. G. L. Stebbins, Jr., and Mr. J. T. Howell. For the unexcelled Base Camp facilities that have made the present botanical collection and report possible, Prof. Stebbins and the writer are grateful to the members of the Sierra Club Outing Committee and to Oliver Kehrlein for his very generous and continuous co-operation.

San Francisco, California
September 28, 1950

Altitudes

Dingleberry Lake, 10500 ft.
Green Lake, 11300 ft.
Lake Sabrina, 9400-9600 ft.
Schober's Pack Station, (below Lake Sabrina), ca. 9000 ft.
Schober's Pack Station to Table Mountain, ca. 9300-9400 ft.
Mesa n. of Mt. Powell, 12600 ft.
Ridge n. of Mt. Powell, 12100 ft.
Near Blue Lake, 10100 ft.
"Grandma's Nubbin" (alt. 11100 ft., w. of Dingleberry Lake), 11000 ft.
"Pee-Wee Pot-Hole" (s. e. of Dingleberry Lake), 10900 ft.
Bottleneck Lake, 11400 ft.
Blue Lake, ca. 10000 ft.
Schober's Holes, ca. 11800 ft.
Andrew's Camp, 9000 ft.
Parcher's Camp, South Lake, 9000 ft.
Baboon Lakes, ca. 11000 ft. (-11300 ft. ?)
Echo Lake, ca. 11200 ft.

FERNS AND FERN ALLIES

Botrychium simplex E. Hitchc. Small Grape-fern.
Dingleberry Lake (86).

Adiantum pedatum L. var. *aleuticum* Rupr. Five-finger Fern.
Ridge w. of Dingleberry Lake, ca. 11000 ft.

Athyrium americanum (Butters) Maxon. Alpine Lady-fern.
N. E. of Dingleberry Lake, ca. 11000 ft. (304).

Cryptogramma acrostichoides R. Br. Parsley Fern.
Near Blue Lake (267).

Cystopteris fragilis (L.) Bernh. Fragile Fern.
Blue Lake; Table Mountain, 11000 ft. (M).

Pellaea Breweri D. C. Eat. Brewer's Cliff Brake.
Table Mountain, 10000 ft.

Woodsia scopulina D. C. Eat. Rocky Mountain Woodsia.
Blue Lake to Dingleberry Lake, ca. 10200 ft. (83); Dingleberry Lake (M).

Isoetes Bolanderi Engelm. Green Quillwort.

Green Lake, in 1-4 ft. of water (250); Dingleberry Lake, on the lake strand (149). Those Base Campers who have not witnessed a botanist collecting these small quillworts on the bottom of 4 feet of icy mountain water have a great treat in store!

Isoetes occidentalis Henderson.

Pee-Wee Pot-Hole, in 3-4 ft. of water (305).

Selaginella Watsonii Underw. Watson Moss-fern.

Above Dingleberry Lake, 10700 ft. (B2928). Much of the beautiful "moss" around rocks in and near commissary was this small relative of the ferns.

GYMNOSPERMS

Pinus albicaulis Engelm. White-bark Pine.

The common timberline pine of the vicinity. Needles 5 in a bunch.

Pinus flexilis James. Limber Pine.

Lake Sabrina (316). The 5-needle pine common at Lake Sabrina, below (ca. 8800 ft.) Lake Sabrina, and on the northern end of Coyote Ridge.

Pinus Jeffreyi Murr. Jeffrey Pine.

Schober's Pack Station and along creek below it.

Pinus monophylla Torr. & Frem. One-leaf Pinyon.

Ridge south of Schober's Pack Station. The much-branched trunk and single needles of this slow-growing pine make identification of it simple.

Pinus Murrayana Balfour. Lodgepole Pine.

Dingleberry Lake; Brown Lake, Needles 2 in a bunch.

Tsuga Mertensiana (Bong.) Sarg. Mountain Hemlock.

Two trees in a canyon east of Dingleberry Lake, at ca. 10800 ft.

Juniperus occidentalis Hook. Western Juniper.

Lake Sabrina; below Lake Sabrina, ca. 8800 ft.

FLOWERING PLANTS

Agropyron Saundersii (Vasey) Hitchc.

West of Dingleberry Lake, 10900 ft. (145).

Agropyron trachycaulum (Link) Malte.

West of Dingleberry Lake, 10900 ft. (143).

Agrostis lepida Hitchc.

Coyote Ridge, 11600 ft. (228). This interesting grass was one of the unusual finds of the trip.

Agrostis Rossae Vasey.

Pee-Wee Pot-Hole (302); Dingleberry Lake (B2998).

Agrostis scabra Willd.

West of Dingleberry Lake, 10900 ft. (141).

Alopecurus aequalis Sobol. Meadow Foxtail.

Blue Lake.

Bromus ciliatus L.

Table Mountain, 10000 ft. (39); Coyote Ridge, 10000 ft. (175).

Bromus marginatus Nees.

Near Blue Lake (274).

Bromus Suksdorfii Vasey.

Lake Sabrina to Blue Lake, ca. 9900 ft.

Calamagrostis Breweri Thurb.
Coyote Ridge, 11600 ft. (227).
Calamagrostis canadensis (Michx.) Beauv.
Near Blue Lake (273).
Calamagrostis purpurascens R. Br.
Blue Lake to Dingleberry Lake, ca. 10200 ft. (76); Hungry Packer Lake (M).
Danthonia intermedia Vasey.
Dingleberry Lake (B2957).
Deschampsia caespitosa (L.) Beauv.
Dingleberry Lake (B2959).
Elymus cinereus Scribn. & Merr.
Schober's Pack Station to Table Mountain (18).
Elymus glaucus Buckl.
Schober's Pack Station.
Festuca elatior L. var. arundinacea (Schreib.) Winm.
Lake Sabrina (320).
Festuca Kingii S. Wats.
Table Mountain, 10000 ft. (30); Coyote Ridge, 11600 ft. (230).
Festuca ovina L. var. brachyphylla (Schult.) Piper.
Blue Lake to Dingleberry Lake, ca. 10200 ft. (81); Coyote Ridge, 11600 ft. (210); Table Mountain, 11000 ft. (M).
Glyceria erecta Hitchc. Manna-Grass.
Dingleberry Lake (308). A common species where water was drying up or had previously dried.
Hordeum jubatum L. Fox-tail Barley.
Andrew's Camp; Sabrina Store, ca. 9000 ft. This attractive grass is similar to the Squirrel-tail Grass (Sitanion Hystrix).
Koeleria cristata (L.) Pers.
Coyote Ridge, 9800 ft. (171), 11500 ft. (222); South Lake to Brown Lake, ca. 9800 ft. (255); Table Mountain, ca. 11300 ft. (M).
Melica stricta Boland. Onion-grass.
Table Mountain, 9800-10000 ft.
Muhlenbergia filiformis (Thurb.) Rydb.
Dingleberry Lake (B2973).
Muhlenbergia Richardsonis (Trin.) Rydb.
Lake Sabrina.
Oryzopsis Bloomeri Piper & Brodie.
Two forms of this interesting hybrid were collected: one, on Coyote Ridge, 9800 ft. (164), Oryzopsis hymenoides x Stipa Elmeri; and the other, near Blue Lake (280A), Oryzopsis hymenoides x Stipa occidentalis.
Oryzopsis hymenoides (Roem. & Schult.) Richer.
Near Blue Lake (202); Coyote Ridge, 9800 ft. (163), 11500 ft. (217).
Oryzopsis Kingii (Boland.) Beal.
West of Dingleberry Lake, 10900 ft. (142).
Phleum commutatum Gaud. Alpine Timothy.
Near Dingleberry Lake (B2974).
Phleum pratense L. Timothy.
Schober's Pack Station.
Poa gracillima Vasey.
Above Dingleberry Lake, 10700 ft. (B2911, B2930); Bottleneck Lake (B2939).
Poa Hansenii Scribn.
Coyote Ridge, 11600 ft. (224); Pee-Wee Pot-Hole (283).
Poa Lettermanii Scribn.
Mt. Darwin, 13300 ft., Fresno Co. (291,292). THE Poa of the trip, snared from its heights by "Led" Stebbins while climbing Mt. Darwin.

Poa nervosa Vasey.
Near Blue Lake (261); Dingleberry Lake (B3000); above Baboon Lakes, ca. 11000 ft. (B3024).

Poa palustris L. Fowl Blue Grass.
Andrew's Camp (154). To my knowledge this grass has not been previously collected in Inyo County.

Poa rupicola Nash.
Coyote Ridge, 11500 ft. (188, 223).

Poa Sandbergii Vasey.
Near Blue Lake (260); Dingleberry Lake (B2997).

Poa Suksdorfii (Beal.) Vasey.
West of Schober's Holes, ca. 12000 ft. (117); mesa n. of Mt. Powell (131, M); Mt. Darwin, 13300 ft. (292A).

Sitanion Hystrix (Nutt.) J. G. Smith. Squirrel-tail Grass.
West of Dingleberry Lake, 10900 ft. (144); Grandma's Nubbin (B2949); above Dingleberry Lake, 10700 ft. (B2912). A common and conspicuous feature of high rocky places in the Sierra.

Sporobolus cryptandrus (Torr.) Gray.
Andrew's Camp (152). Apparently new to California.

Stipa californica Merr. & Davy.
Dingleberry Lake.

Stipa columbiana Macoun.
Dingleberry Lake (87).

Stipa Elmeri Piper & Brodie.
Coyote Ridge, 9800 ft. (162).

Stipa occidentalis Thurb.
Near Blue Lake (280).

Stipa pinetorum Jones.
Coyote Ridge, 11600 ft. (221); Lake Sabrina (72).

Stipa speciosa Trin. & Rupr.
Schober's Pack Station to Table Mountain.

Trisetum spicatum (L.) Richter.
Table Mountain, 11000 ft. (M).

Trisetum spicatum (L.) Richter var. Congdonii (Scribn. & Mer.) Hitchc.
Dingleberry Lake.

Trisetum spicatum (L.) Richter var. molle (Michx.) Beal.
Lake Sabrina; near Dingleberry Lake (B2958).

Carex abrupta Mkze.
Schober's Pack Station to Table Mountain (15).

Carex arctogena H. Smith.
Bottleneck Lake (106).

Carex brevipes W. Boott.
Dingleberry Lake (85).

Carex Breweri Boott.
Coyote Ridge, 11900 ft. (193); Schober's Holes (110).

Carex Congdonii Bailey.
East of and above Moonlight Lake, ca. 12000 ft. (133).

Carex disperma Dewey.
Near Blue Lake (278).

Carex Douglasii Boott.
Andrew's Camp (153).

Carex exserta Mkze. Short-hair.
Dingleberry Lake. Base Campers became familiar with the ring-forming sedge while clearing it away from under their beds.

Carex fissuricola Mkze.
Pee-Wee Pot-Hole (300); Dingleberry Lake (B2960).

Carex Helleri Mkze.

Blue Lake to Dingleberry Lake (79); mesa n. of Mt. Powell (132); Coyote Ridge, 11900 ft. (194), 12000 ft. (198). Base Campers who thought it amusing to see botanists uprooting this dark-headed sedge should have seen the expressions on their faces as they vainly searched for the tubercles on the perigynia which would have made it the rarer *Carex albonigra* Mkze.

Carex heteroneura W. Boott.

Near Blue Lake (268, perigynia 2.5 mm. long; 271, perigynia 2.75 mm. long; 270, perigynia 3.5 mm. long).

Carex illota Bailey.

Pee-Wee Pot-Hole (284).

Carex Kelloggii W. Boott.

Pee-Wee Pot-Hole (287).

Carex multicostata Mkze.

Near Blue Lake (272).

Carex praeceptorum Mkze.

Pee-Wee Pot-Hole (290).

Carex phaeocephala Piper, intermediate to *Carex proposita* Mkze.

Coyote Ridge, 12000 ft. (199a).

Carex proposita Mkze.

Blue Lake to Dingleberry Lake (80); e. of and above Moonlight Lake (134).

Carex rostrata Stokes.

Near Blue Lake (269); Emerald Lakes.

Carex straminiformis Bailey.

Pee-Wee Pot-Hole (289); above Dingleberry Lake (B2908); Dingleberry Lake (B2994).

Carex subnigricans Stacey.

West of Dingleberry Lake (147); Table Mountain, 11000 ft. (M).

Carex tahoensis Smiley.

Coyote Ridge, 12000 ft. (199).

Carex vernacula Bailey.

Above Midnight Lake, 11250 ft. (B3002).

Eriophorum crinigerum (A. Gray) Beetle. Cotton Sedge.

Pee-Wee Pot-Hole (299); w. of Dingleberry Lake, 10900 ft. (148).

Juncus balticus Willd. var. *montanus* Engelm.

Schober's Pack Station; Coyote Ridge, 10000 ft.

Juncus Drummondii E. Mey.

Dingleberry Lake (B2995).

Juncus macrandrus Coville.

Schober's Pack Station (57).

Juncus nevadensis Wats.

Pee-Wee Pot-Hole (298); Coyote Ridge, 11500 ft. (299); w. of Dingleberry Lake. (103).

Juncus Parryi Englem.

Near Blue Lake (263).

Luzula congesta (Thuill.) Lejeune.

Dingleberry Lake (B2992); near Dingleberry Lake (B2976); Bottleneck Lake, (B2941, B2942); above Dingleberry Lake (B2913).

Luzula divaricata Wats.

Pee-Wee Pot-Hole (303).

Luzula parviflora (Ehrh.) Desv.

Above Dingleberry Lake, ca. 10900 ft. (139).

Allium validum Wats. Swamp Onion.

Schober's Pack Station (1).

Lilium Kelleyanum Lemmon. Sierra Leopard Lily.

Schober's Pack Station (8).

Smilacina stellata (L.) Desf. Starry Soloman.

Schober's Pack Station (11).

Veratrum californicum Dur. Corn Lily.

Below Schober's Station on Bishop Creek at ca. 9000 ft.

Iris missouriensis Nutt. Mountain Iris.

Schober's Pack Station.

Habenaria leucostachys (Lindl.) Wats. White Rein-Orchis.

W. of Dingleberry Lake (137).

Populus tremuloides Michx. Aspen.

Schober's Pack Station; Dingleberry Lake.

Populus trichocarpa T. & G. Black Cottonwood.

Andrew's Camp. Common along Bishop Creek at ca. 6000-9000 ft. along the road.

Salix Eastwoodiae Ckll.

Green Lake (248).

Salix monica Bebb. Mono Willow.

Green Lake (249).

Salix orestera Schn.

Base of Table Mountain (24); Dingleberry Lake (306); Green Lake to Brown Lake (253). The common willow of the vicinity.

Salix petrophila Rydb. var. *caespitosa* (Kenn.) Schn. Creeping Willow.

Bottleneck Lake (105).

Betula fontinalis Sarg. Water Birch.

Schober's Pack Station.

Castanopsis sempervirens (Kell.) Dudley. Chinquapin.

Near Blue Lake.

Urtica holosericea Nutt. Nettle.

Lake Sabrina to South Lake, ca. 8900 ft.

Eriogonum caespitosum Nutt.

Coyote Ridge, 11900 ft. (204). One of the interesting cushion plants of Coyote Ridge.

Eriogonum cernuum Nutt.

Schober's Pack Station to Table Mountain (19); Lake Sabrina (M).

Eriogonum incanum T. & G.

Above Dingleberry Lake, 10700 ft. (B2925); Dingleberry Lake (B2993).

Eriogonum Lobbii T. & G.

W. of Schober's Holes, ca. 12200 ft. (113); Coyote Ridge, 12000 ft. (197).

Eriogonum microthecum Nutt.

Schober's Pack Station to Table Mountain (23); Lake Sabrina (M).

Eriogonum nudum Dougl. var. *deductum* (Greene) Jeps.

Dingleberry Lake (B2964); above Dingleberry Lake (B2927).

Eriogonum nudum Dougl. var. *scapigerum* (Eastw.) Jeps.

Above Dingleberry Lake, 10700 ft. (B2926).

Eriogonum ochrocephalum Wats. var. *agnellum* Jeps.

Coyote Ridge, 11900 ft. (192).

Eriogonum ovalifolium Nutt. ssp. *vineum* (Small) Stokes.

Coyote Ridge, 11900 ft. (234); mesa n. of Mt. Powell (127); Bottleneck Lake (B2932); above Dingleberry Lake, 10700 ft. (B2923); Table Mountain, 11300 ft. (M).

Eriogonum ovalifolium Nutt. var.

Coyote Ridge, 11900 ft. (191).

Eriogonum spergulinum Torr.

Parcher's Camp, South Lake (257).

Eriogonum umbellatum Torr. Sulphur-Flower.

Schober's Pack Station to Table Mountain (53).

Oxyria digyna (L.) Hill. Alpine Sorrel.
Bottleneck Lake (M).
Oxytheca dendroidea Nutt.
Coyote Ridge, 10000 ft. (165).
Polygonum Kelloggii Greene
Coyote Ridge, 11500 ft. (219); Grandma's Nubbin (90).
Polygonum minimum Wats.
Dingleberry Lake (281).
Rumex paucifolius Nutt.
Dingleberry Lake (M); above Dingleberry Lake, 10700 ft. (B2905); Table Mountain, 11000 ft. (M).
Rumex salicifolius Weinm. var. montigenitus Jeps.
Brown Lake, ca. 10900 ft.
Chenopodium atrovirens Rydb.
Sabrina Store, ca. 9400 ft. (59).
Salsola Kali L. var. tenuifolia Tausch. Tumble-Weed.
Coyote Ridge, ca. 10000 ft.
Calyptridium umbellatum (Torr.) Greene var. caudiciferum (Gray) Jeps.
Above Dingleberry Lake, 10700 ft. (B2924); ridge n. of Mt. Powell (123); Table Mountain, 11000 ft. (M).
Lewisia pygmaea (Gray) Rob.
Bottleneck Lake (B2936); Table Mountain, 11000 ft. (M).
Lewisia sierrae Ferris.
Above Dingleberry Lake, 10700 ft. (B2921); Coyote Ridge, 11500 ft.; summit of Mt. Powell, ca. 13500 ft. (Oliver Kehrlein).
Lewisia triphylla (S. Wats.) Rob.
Dingleberry Lake (M).
Arenaria compacta Cov. Alpine Sandwort.
Coyote Ridge, 12000 ft. (196); Table Mountain, 10000 ft. (34), 11000 ft. (M); Baboon Lakes (Marian Rey).
Arenaria macradenia Wats. ssp. Ferrisae Abrams.
Coyote Ridge, 10000 ft. (167).
Sagina saginoides (L.) Karst. var. hesperia Fern.
W. of Dingleberry Lake (146).
Silene montana Wats. ssp. typica Hitchc. & Maguire var. sierrae Hitchc. & Maguire.
Coyote Ridge, 10000 ft. (161).
Silene Watsonii Rob.
Blue Lake to Dingleberry Lake, ca. 10200 ft. (77); Table Mountain, 10000 ft. (34), 11000 ft. (M); Bottleneck Lake (B2933).
Stellaria longipes Goldie.
Dingleberry Lake (M); Echo Lake, ca. 11200 ft. (M).
Stellaria umbellata Turcz.
Dingleberry Lake (M).
Aconitum columbianum Nutt. Western Monkshood.
South Lake to Brown Lake, ca. 9500 ft.
Aquilegia formosa F. & M. var. pauciflora (Greene) Booth.
Lake Sabrina.
Aquilegia formosa F. & M. var. truncata (F. & M.) Baker.
Lake Sabrina (64).
Aquilegia formosa F. & M. var. truncata (F. & M.) Baker x Aquilegia pubescens Cov.
Lake Sabrina (63). In this region the complete intergrading of these two usually distinct species was noticed. At upper altitudes, where A. pubescens was the only species, the flowers were pure white, but at lower elevations the color varied from white to dark pink.

Aquilegia pubescens Cov. Sierra Columbine.
Lake Sabrina (61, 62).

Delphinium polycladon Eastw. Larkspur.
Near Blue Lake (265).

Ranunculus Eschscholtzii Schlect.
Dingleberry Lake (M); above Dingleberry Lake, 10700 ft. (B2917); Table Mountain, 11000 ft. (M).

Thalictrum Fendleri Engelm. Meadow-rue.
Lake Sabrina (71).

Argemone platyceras Link & Otto. Prickly Poppy.
Lake Sabrina to South Lake, ca. 8800 ft.

Anelsonia eurycarpa (Gray) Nels. & Payson.
This rare little relative of the mustards was collected a monumental two times on the 1950 Base Camp: Coyote Ridge, 12100 ft. (195); Mt. Powell, n. end, ca. 12800 ft. (312). 2nd Period Base Campers who made the climb of Mt. Powell with the Maiden Aunts on the last active day probably had a great exhibition of a botanist's enthusiasm as "Led" Stebbins found this plant.

Arabis Holboellii Hornem. var. retrofracta (Gray.) Rydb. vel aff.
Above Green Lake, 11400 ft. (244).

Arabis inyoensis Rollins.
Above Dingleberry Lake, 10700 ft. (B2904).

Arabis Lemmonii Wats.
Above Echo Lake, ca. 11200 ft. (B2987).

Arabis Lemmonii Wats. var. depauperata (Nels. & Kennedy) Rollins.
Coyote Ridge, 12000 ft. (206); Bottleneck Lake (B2931); Dingleberry Lake (B3018, M); above Dingleberry Lake, 10700 ft. (B2920).

Arabis Lyallii Wats. var. nubigena (Mcbr. & Pays.) Rollins.
Blue Lake to Dingleberry Lake, ca. 10200 ft. (82). The type of A. Davidsonii Greene was collected at Lake Sabrina by Davidson.

Arabis platysperma Gray.
Lake Sabrina (73); near Blue Lake (276); Schober's Pack Station (12); Bottleneck Lake (B2934, B2935). The following collections are intermediate to the var. Howellii (Wats.) Jeps.: mesa n. of Mt. Powell (130); Hungry Packer Lake, ca. 10800 ft. (M).

Arabis platysperma Gray var. Howellii (Wats.) Jeps.
Above Baboon Lakes, ca. 11200 ft. (B3020); Table Mountain, 11000 ft. (M).

Arabis rectissima Greene.
Sabrina Store, ca. 9400 ft. (58).

Descuraina californica (Gray) O. E. Schulz.
Schober's Pack Station (46); Lake Sabrina (66).

Descuraina Richardsonii (Sweet) O. E. Schulz ssp. viscosa (Rydb.) Detl.
Lake Sabrina (65).

Draba Breweri Wats.
Grandma's Nubbin (96); Coyote Ridge, 11800 ft. (214); above Dingleberry Lake, 10700 ft.(B2922); above Baboon Lakes, ca. 11200 ft. (B3023); Table Mountain, 11000 ft. (M); Echo Lake, ca. 11200 ft. (M). Most of these collections probably represent the var. sublaxa Jeps.

Draba crassifolia Graham var. nevadensis Hitchc.
Coyote Ridge, 11500 ft. (218).

Draba Lemmonii S. Wats.
Grandma's Nubbin (97); above Midnight Lake, 11400 ft. (B3004); Table Mountain, 11000 ft. (M); top of Mt. Powell, ca. 13500 ft. (Oliver Kehrlein).

Draba oligosperma Hook.
Mesa n. of Mt. Powell (125). An alpine cushion plant.

Draba oligosperma Hook. var. subsessilis (Wats.) Schultz.
Coyote Ridge, 11600 ft. (235).

Draba praealta Greene (det. J. T. Howell).
Stream above Lake Sabrina, 9600 ft. (69).

Draba sierrae Sharsm. was collected by J. T. Howell on Coyote Ridge in 1947 but we did not re-collect it this year.

Draba stenoloba Ledeb. var. *nana* Hitchc.
Lake Sabrina (68); above Dingleberry Lake, 10700 ft. (B2916).

Erysimum perenne (Wats.) Abrams. Sierra Wallflower.
Dingleberry Lake (B3019); near Dingleberry Lake (B2996).

Lepidium virginicum L.
Schober's Pack Station.

Sisymbrium altissimum L.
Schober's Pack Station to Table Mountain (17).

Streptanthus pilosus (Wats.) Jeps.
Coyote Ridge, 9600 ft. (182).

Streptanthus tortuosus Kell. var. *orbiculatus* (Greene) Hall. Jewel-flower.
Grandma's Nubbin, 10800 ft. (104).

Sedum Rosea (L.) Scop. subsp. *integrifolium* (Raf.) Hulten.
Above Dingleberry Lake, 10700 ft. (B2900).

Sedum stenopetalum Pursh. Sierra Stonecrop.
Above Baboon Lakes, ca. 11200 ft. (B3021); above Dingleberry Lake, 10700 ft. (B2929); Bottleneck Lake, 11400 ft. (M).

Heuchera rubescens Torr. Alum Root.
Pee-Wee Pot-Hole (296); Table Mountain, 10000 ft. (27). The beautiful pink or white flower-spikes of this rock-crevace plant no doubt impressed every Base Camper.

Jamesia americana T. & G. var. *californica* (Small) Jepson. Jamesia.
Ridge n. of Mt. Powell (121); Grandma's Nubbin (102).

Mitella Breweri Gray.
Midnight Lake to Dingleberry Lake, ca. 10800 ft. (258).

Parnassia californica (Gray) Greene. Grass-of-Parnassus.
Schober's Pack Station; Dingleberry Lake.

Ribes cereum Dougl.
Schober's Pack Station (48); Andrew's Camp (156). The common low-elevation currant of the region.
The following collection is intermediate to *Ribes inebrians* Lindl.: Grandma's Nubbin (B2950).

Ribes inebrians Lindl.
Ridge n. of Mt. Powell (122). A high altitude, condensed form of *Ribes cereum*.

Ribes montigenum McCl. Mountain Gooseberry.
Ridge w. of Dingleberry Lake, 10900 ft. (150).

Saxifraga aprica Greene.
Above Dingleberry Lake, ca. 10700 ft. (B2919).

Saxifraga arguta D. Don.
Lake Sabrina (70).

Saxifraga bryophora Gray. Moss Saxifrage.
Dingleberry Lake (M). Making a very beautiful lacy effect on the flats just east of Comissary.

Saxifraga debilis Engelm. Pigmy Saxifrage.
Schober's Holes, ca. 11400 ft. (108); Midnight Lake, ca. 11000 ft. (151); Bottleneck Lake (M). A delicate little belly plant found in moist places under large blocks of talus. Very rare, collected less than a dozen other times in the Sierra. 2nd Period Base Campers will remember Ledyard's "Ballad of Schober's Holes", which named this the "Schober's Pot-Belly Saxifrage."

Saxifraga nidifica Greene.
Dingleberry Lake (B2991, 135).

Saxifraga Tolmiei T. & G. Alpine Saxifrage.
Baboon Lakes (Marian Rey, M).

Cerocccarpus ledifolius Nutt. Desert Mountain Mahogany.
Lake Sabrina and below, ca. 8800-9700 ft.

Chamaebatiaria Millefolium Maxim. Desert-Sweet.
Table Mountain, 9800 ft. (26); Lake Sabrina (M).

Holodiscus microphyllus Rydb. Cliff-Spray.
Table Mountain, 9900 ft. (31); Dingleberry Lake (M).

Potentilla Breweri Wats.
Pee-Wee Pot-Hole (286); near Midnight Lake, 11250 ft. (B3016); above Dingleberry Lake, 10700 ft. (B2903).

Potentilla Drummondii Lehm.
Table Mountain, 11000 ft. (M).

Potentilla fruticosa L. Bush Cinquefoil.
Bottleneck Lake to Schober's Holes, ca. 11500 ft. (107).

Potentilla glandulosa Lindl. var. nevadensis Wats.
Dingleberry Lake (B2963); Schober's Pack Station (10).

Potentilla gracilis Dougl. var. Elmeri (Rydb.) Jeps.
Schober's Pack Station (5).

Potentilla gracilis Dougl. var. Hallii Wolf.
Midnight Lake to Dingleberry Lake, ca. 10800 ft. (259); Dingleberry Lake (B2967); Pee-Wee Pot-Hole (297).

Potentilla lycopodioides (Gray) Baill. var. scandularis (Rydb.) Howell.
Coyote Ridge, 11600 ft. (225); Table Mountain, 11300 ft. (M).

Potentilla Muirii (Gray) Greene.
Coyote Ridge, 11900 ft. (208); ridge w. of Schober's Holes, ca. 11900 ft. (114). A very attractive species with its silvery worm-shaped (vermiform) leaves.

Potentilla nubigena Greene.
Mesa n. of Mt. Powell (129); Blue Lake to Dingleberry Lake (84); above Dingleberry Lake, 10700 ft. (B2910).

Potentilla pennsylvanica L. var. strigosa Rydb.
Coyote Ridge, 12000 ft. (233). Only collected a few other times in the Sierra.

Potentilla pseudosericea Rydb.
Coyote Ridge, 12000 ft. (231). Another rare species, also only collected a few times in the Sierra.

Potentilla purpurascens (Wats.) Greene var. Congdonis (Rydb.) Jeps.
Schober's Pack Station (3). Generally a rare plant.

Potentilla Shockleyi (Wats.) Jeps.
Coyote Ridge, 11600 ft. (226), 12000 ft. (232). Another of the interesting cushion plants of Coyote Ridge.

Potentilla Sibbaldii Hal. f.
Above Midnight Lake, 11400 ft. (B3003); above Dingleberry Lake, 10700 ft. (B2902).

Prunus Andersonii Gray. Desert Peach.
Coyote Ridge, 9700 ft.

Purshia glandulosa Curran.
Schober's Pack Station; Coyote Ridge, 11500 ft. (216).

Rosa ultramontana (Wats.) Heller.
Lake Sabrina (322); Schober's Pack Station (47).

Spiraea densiflora Nutt. Spiraea.
West of Dingleberry Lake, 10900 ft.

Astragalus lentiginosus Dougl. var. ineptus (Gray) M. E. Jones.
Coyote Ridge, 11800 ft. (237).

Astragalus Purshii Dougl. Woolly-Pod.
Coyote Ridge, 10000 ft. (199).

Astragalus Whitneyi Gray. Loco-Weed.
Coyote Ridge, 9800 ft. (178), 11300 ft. (236). It was the inflated, red-marked pods of this interesting plant as described by Mrs. Schober which let Prof. Stebbins and me to visit the northern end of Coyote Ridge.

Lupinus confertus Kell.
Bottleneck Lake (B2938).

Lupinus hypoleucus Greene sensu Eastw. in herb.
Grandma's Nubbin (101); Dingleberry Lake (B2977, M); Bottleneck Lake (B2937, M).

Lupinus inyoensis C. P. Sm.
Coyote Ridge, 10000 ft. (168).

Lupinus pratensis Hel.
Schober's Pack Station (7). Heller collected the type of this species at McGee Meadows, at about 8500 ft. on Bishop Creek.

Lupinus sellulus Kell. var. elatus Eastw.
Lake Sabrina (323); above Lake Sabrina, 9700 ft. (60). The type collection of this variety was made by J. T. Howell on the 1940 Base Camp, so it is interesting to find it now, just 10 years later.

Lupinus Stinchfieldiae C. P. Smith.
Table Mountain, 9900 ft. (32); Lake Sabrina (321); Coyote Ridge, 10000 ft. (169). The type collection of this narrowly distributed lupine was made by Roxana Stinchfield Ferris of Stanford University above North Lake on the Loch Lever Fork of Bishop Creek, about 10 miles north of these localities.

Oxytropis Parryi Gray.
Coyote Ridge, 11900 ft. (205). This represents the second collection of this rare species in the Sierra (the first was made by J. T. Howell above Thunder and Lightning Lake (upper Baker Lake) while on the 1947 Base Camp), and the third in California (it was collected once in the White Mountains).

Oxytropis viscida Nutt.
Coyote Ridge, 11500-12300 ft. (240). This species is very common on Coyote Ridge, but this appears to be the only point at which it enters the Sierra.

Trifolium monanthum Gray. Mat Clover.
South Lake to Brown Lake, ca. 9800 ft.

Callitriche palustris L. Water Starwort.
Dingleberry Lake.

Ceanothus velutinus T. & G. Tobacco Bush.
Lake Sabrina (M). Leaves with a distinct odor of cinnamon.

Sidalcea spicata Greene.
Schober's Pack Station (45).

Sphaeralcea ambigua Gray var. monticola T. H. Kearney. Apricot Mallow.
Coyote Ridge, 10000 ft. (186); Schober's Pack Station to Table Mountain, ca. 9350 ft. (16); Lake Sabrina (M).

Viola Macloskeyi Lloyd. White Violet.
Dingleberry Lake.

Mentzelia congesta Gray.
Coyote Ridge, 10000 ft. (166).

Mentzelia laevicaulis T. & G. Blazing Star.
Table Mountain, 10000 ft. (41); canyon below Lake Sabrina, ca. 8500 ft. Called the Spanish name, Buena Mujer, by the local inhabitants.

Opuntia erinacea Engelm. Prickly-Pear Cactus.
Table Mountain, 9500-10000 ft. (25); Coyote Ridge, 9300 ft.

Epilobium alpinum L.
Schober's Holes (109); Pee-Wee Pot-Hole (285). A tiny, wet-moss-loving plant.

Epilobium angustifolium L. Fire-Weed.
Dingleberry Lake (314). Very common in this area.

Epilobium glandulosum Lehm. var. exaltatum (Drew) Munz.

Andrew's Camp (157).

Epilobium latifolium L. x E. angustifolium L. ?

Green Lake (247). One of the interesting plants of the trip. E. latifolium is very rare in the Sierra. This plant has only 47% good pollen, typical E. angustifolium has 99%-100% good pollen, and E. latifolium from Nome, Alaska, has 90% good pollen. It seems intermediate between the two parents in all details, even in the size of the pollen grains. (Stebbins letter of Sept. 5).

Epilobium obcordatum Gray. Rock-Fringe.

Baboon Lakes (M); Lake George, ca. 11000 ft. (M).

Gayophytum Nuttallii T. & G.

Schober's Pack Station (20).

Gayophytum racemosum T. & G.

Dingleberry Lake (315).

Angelica lineariloba Gray.

Lake Sabrina; Coyote Ridge, 10000 ft.

Lomatium Torreyi C. & R.

Near Blue Lake (266).

Perideridia Gairdneri (H. & A.) Mathias. Indian Potato.

Dingleberry Lake (310, B2970). The little white parsley which helped to make "Neanderthal Meadows" so beautiful.

Sphenosciadium capitellatum Gray. Button Parsley.

Schober's Pack Station (6). Anyone interested in long botanical names should try this!

Cassiope Mertensiana Don. White Heather.

Pee-Wee Pot-Hole (294); above Midnight Blue Lake, 11500 ft. (B3026).

Kalmia polifolia Wang. var. microphylla (Hook.) Rehd. Alpine-Laurel.

Dingleberry Lake.

Ledum glandulosum Nutt. Labrador Tea.

Pee-Wee Pot-Hole (301). A neat little shrub of wet places, with even clusters of white flowers.

Phyllodoce Breweri (Gray) Maxim. Red Heather.

Above Dingleberry Lake, 10700 ft. (B2914).

Vaccinium caespitosum Michx. Dwarf Bilberry.

Dingleberry Lake (M).

Androsace septentrionalis L. var. subumbellata A. Nels.

Coyote Ridge, 11600 ft. (209).

Dodecatheon alpinum Greene. Alpine Shooting-Star.

Andrew's Camp (155).

Dodecatheon Jeffreyi Moore var. redolens Hall. Sierra Shooting-Star.

Above Dingleberry Lake, 10700 ft. (B2901).

Primula suffrutescens Gray. Sierra Primrose.

Above Baboon Lakes, ca. 11200 ft. (B3022); Baboon Lakes (M); Table Mountain, 11000 ft. (M).

Gentiana Amarella L. var. acuta Herder.

Ridge w. of Dingleberry Lake, 10900 ft. (136); Green Lake (251).

Gentiana holopetala Holm.

Dingleberry Lake (313). Another beautiful plant of the "Neanderthal Meadows" opening only on the sunny days.

Gentiana Newberryi Gray.

Brown Lake, ca. 10900 ft. (254).

Swertia puberulenta (Davidson) Jeps.

Parcher's Camp, South Lake (256). The type locality.

Gilia aggregata (Pursh) Spr. var. *Bridgesii* Gray. Sky-Rocket.

Above Green Lake, 11500 ft. (242).

Gilia latiflora Gray var. *cana* Jones.

Coyote Ridge, 10000 ft. (185).

Hugelia filifolia (Nutt.) Jeps. var. *floccosa* (Gray) Jeps.

Andrew's Camp.

Leptodactylon pungens (Torr.) Nutt. Prickly-Gilia.

Table Mountain, 9700 ft., 11300 ft. (M).

Linanthastrum Nuttallii (Gray) Ewan.

Table Mountain, 10000 ft. (38); Dingleberry Lake (B2968, M).

Phlox Douglasii Hook.

Bottleneck Lake (B2940); top of Mt. Powell, ca. 13500 ft. (Oliver Kehrlein).

Phlox Douglasii Hook. var. *caespitosa* (Nutt.) Mason.

Mesa n. of Mt. Powell (128); Grandma's Nubbin (98); Table Mountain, 11300 ft. (M). A little white-flowered alpine cushion plant.

Polemonium eximium Greene. Sky Pilot.

Ridge n. of Mt. Powell (124); summit Mt. Darwin, Inyo-Fresno Co., 13950 ft.; summit Mt. Powell, Inyo-Fresno Co., ca. 13500 ft.

Nama Rothrockii Gray.

Coyote Ridge, 9800 ft. (184).

Phacelia bicolor Torr.

Coyote Ridge, 10000 ft. (176).

Phacelia dasyphylla Greene.

Above Green Lake, 11400 ft. (245); Dingleberry Lake.

Phacelia frigida Greene.

Coyote Ridge, 9800 ft. (172).

Phacelia ramosissima Dougl.

Table Mountain, 9800 ft. (54).

Cryptantha circumscissa (H. & A.) Jtn. var. *hispida* (Mcbr.) Jtn.

Table Mountain to Schober's Pack Station (52); Coyote Ridge, 9600 ft. (180).

Cryptantha glomeriflora Greene.

Above Blue Lake, 10300 ft.

Cryptantha muricata (H. & A.) Nels. & Mcbr. var. *denticulata* (Greene) Jtn.

Lake Sabrina (319).

Cryptantha Watsonii (Gray) Greene.

Table Mountain to Schober's Pack Station (51).

Hackelia Jessicae (McGr.) Jtn.

Schober's Pack Station (50).

Oreocarya confertiflora Greene.

Table Mountain, 9500-10000 ft. (28); Coyote Ridge, 10000 ft.

Oreocarya humilis (Gray) Greene.

Coyote Ridge, 12000 ft. (189, 190); Table Mountain, 10000 ft. (M).

Oreocarya nubigena Greene.

Grandma's Nubbin (99, B2947); Mesa n. of Mt. Powell (M).

Monardella linoides Gray

Coyote Ridge, 9800 ft. (183).

Monardella odoratissima Benth. Coyote Mint. Pennyroyal.

Table Mountain, 9800 ft. (40). Dingleberry Lake vicinity.

Nicotaina attenuata Torr. Coyote Tobacco.

Andrew's Camp (159).

Castilleja Culbertsonii Greene.

Dingleberry Lake (309); above Dingleberry Lake, 10700 ft. (B2918).

Castilleja Howellii Eastw.

Schober's Pack Station (49). A beautiful tall paintbrush overtopping the low sagebrush.

Castilleja miniata Dougl.

Schober's Pack Station (9); Dingleberry Lake.

Castilleja nana Eastw. Alpine Paintbrush.

Coyote Ridge, 12000 ft. (187); above Echo Lake, ca. 11200 ft. (B2986); Table Mountain, 11000 ft. (M).

Castilleja pinetorum Fern. *vel. aff.* Indian Paintbrush.

Table Mountain, 9900 ft. (36); Grandma's Nubbin (92).; above Green Lake, 11500 ft. (241); Dingleberry Lake (B2969). Common and showy in region.

Cordylanthus Kingii Wats.

Coyote Ridge, 9800 ft. (174). Only collected one or two other times in the Sierra.

Mimulus primuloides Benth. var. *pilosellus* (Greene) Smiley.

Blue Lake (75); above Dingleberry Lake, 10700 ft. (B2906). An attractive, low, yellow-flowered Monkey Flower of moist places.

Mimulus Suksdorfii Gray.

Coyote Ridge, 11500 ft. (220), minute plants ranging *up* to 2/5 of an inch in height.

Mimulus Tilingii Regel.

Lake Sabrina (317).

Pedicularis attolens Gray. Elephant Snouts.

Dingleberry Lake (307, B2956).

Penstemon Bridgesii Gray.

Table Mountain, 10000 ft. (44).

Penstemon Davidsonii Greene.

Ridge w. of Schober's Holes (118).

Penstemon heterodoxus Gray. Whorled Penstemon.

Dingleberry Lake (B2972); Bottleneck Lake (B2944); Table Mountain, 11300 ft. (M).

Penstemon Newberryi Gray. Pride-of-the-Mountains.

Dingleberry Lake (B2971, B2990).

Penstemon oreocharis Greene.

Schober's Pack Station (55).

Penstemon Rothrockii Gray.

Table Mountain, 10000 ft. (42). Apparently this distinctive plant does not range any farther north.

Penstemon speciosus Dougl. ssp. *Kennedyi* (Nels.) Keck.

Above Green Lake, 11500 ft. (243).

Scrophularia californica Cham. *vel aff.* California Bee-Plant.

Table Mountain, 9400 ft.

Verbascum Thapsus L. Turkey Mullen.

Coyote Ridge, ca. 9200 ft.

Veronica americana Schwein. American Limewort.

Schober's Pack Station.

Veronica Wormskjoldii R. & S.

Dingleberry Lake (B2988).

Galium Munzii Hilend & Howell.

Coyote Ridge, 9800 ft. (173).

Galium Munzii Hilend & Howell var. *subalpinum* Hilend & Howell.

Coyote Ridge, 11200 ft. (239).

Sambucus racemosa L. Elderberry.

Table Mountain, ca. 9800 ft.

Symphoricarpos rotundifolius Gray *sensu* McMinn. Snow Berry.

Coyote Ridge, 11500 ft. (273); Dingleberry Lake.

Achillaea lanulosa Nutt. ssp. *alpicola* (Rydb.) Keck. Alpine Yarrow.

Mesa n. of Mt. Powell, 3 inches high (M); Dingleberry Lake, plants 4-5 inches high; ridges w. of Schober's Holes, 1 plant 2/5 inch high at 12300 ft.

Agoseris glauca (Pursh) Greene var. *dasycephala* (T. & G.) Jepson.

Coyote Ridge, 11700 ft. (201).

Antennaria media Greene.

Pee-Wee Pot-Hole (295); Coyote Ridge, 11700 ft. (211); Dingleberry Lake (B2989); above Dingleberry Lake, 10700 ft. (B2915).

Antennaria rosea (Eat.) Greene.

Table Mountain, 10000 ft. (33); Grandma's Nubbin (91, in U. C. Herb. only); Dingleberry Lake (M).

Antennaria scabra Greene.

Coyote Ridge, 11700 ft. (211A). Rare in the Sierra.

Antennaria umbrinella - the form called *A. dioica* var. *kernensis* Jeps.

Coyote Ridge (212).

Aplopappus apargioides Gray.

Lake Sabrina to Blue Lake, 9700 ft. (74); Dingleberry Lake (B2961); Table Mountain, 11000 ft. (M).

Aplopappus eximius Hall ssp. *Peirsonii* Keck.

Lake Sabrina (315); above, 9600 ft. (67); ridge n. of Mt. Powell (125); Grandma's Nubbin (95, B2951); near Blue Lake (277); Baboon Lakes (M). Those unsuccessful grandmothers who scoured Grandma's Nubbin for this narrowly distributed plant on the first trip of the 2nd period will no doubt find almost as much satisfaction in the fact that we made 7 collections of this uncommon plant as they would have in the promised fig from Ledyard's lunch.

Aplopappus Macronema Gray.

Grandma's Nubbin, 10800 ft. (93); Table Mountain, 11000 ft. (M); Dingleberry Lake (M).

Arnica latifolia Bong.

Andrew's Camp (160).

Arnica mollis Hook.

Pee-Wee Pot-Hole (282); w. of Dingleberry Lake, 10700 ft. (88); above Midnight Lake, ca. 11500 ft. (B3025).

Arnica nevadensis Gray.

Baboon Lakes (M); Lake George, ca. 10900 ft. (M).

Artemisia dracunculus L. ssp. *typica* Keck.

Coyote Ridge, 12000 ft. (200).

Artemisia ludoviciana Nutt. ssp. *incompta* (Nutt.) Keck.

Table Mountain, 10000 ft. (43); near Blue Lake (275); ridge w. of Dingleberry Lake, 11000 ft. (140).

Artemisia Rothrockii Gray.

Coyote Ridge, 12000 ft. (202).

Artemisia tridentata Nutt. Common Sagebrush.

Coyote Ridge, n. end; Lake Sabrina; Bishop Creek, 5000-9500 ft.

Aster Andersonii Gray.

Pee-Wee Pot-Hole (288); Dingleberry Lake (B2962); Bottleneck Lake (B2945); above Dingleberry Lake, 10700 ft. (B2909).

Aster leucanthemifolius Greene. Desert Aster.

Schober's Pack Station to Table Mountain (21).

Balsamorhiza sagittata Nutt. Balsam Root.

Lake Sabrina to South Lake, ca. 8800 ft. The large (3' long) leaves of this plant were conspicuous in the Sagebrush Association at the road fork.

Chaenactis Douglasii H. & A.
Coyote Ridge, 11400 ft. (238); Schober's Pack Station to Table Mountain (14).

Chaenactis nevadensis Gray.
Coyote Ridge, 11900 ft. (203); Table Mountain, 11000 ft. (M).

Chrysothamnus viscidiflorus (Hook.) Greene ssp. *pumilus* (Nutt.) H.& C.
Rabbit Bush.
Coyote Ridge, 10000 ft. (215).

Cirsium tioganum (Gray) Petrak. Alpine Brownie-Thistle.
Dingleberry Lake (B2975).

Erigeron Breweri Gray ssp. *typicus* Cronq.
Coyote Ridge, 9800 ft. (177); Lake Sabrina (318).

Erigeron compositus Pursh var. *discoideus* Gray.
Ridge w. of Schober's Holes, 12000 ft. (116).

Erigeron petiolaris Greene.
Blue Lake to Dingleberry Lake, ca. 10200 ft. (78); ridge w. of Schober's Holes, ca. 11700 ft. (120); Bottleneck Lake (B2943); Echo Lake (M).

Erigeron pygmaeus (Gray) Greene.
Grandma's Nubbin (100, B2948); Table Mountain, 11000 ft. (M); mesa n. of Mt. Powell (M); Mt. Powell, top, ca. 13500 ft. (Oliver Kehrlein). An attractive little alpine daisy.

Erigeron pygmaeus (Gray) Greene var.
Coyote Ridge, 9800 ft. (170); Table Mountain, 10000 ft. (35). This distinctive variety has been given a manuscript name by C. W. Sharsmith.

Eriophyllum lanatum (Pursh) Forbes var. Golden Yarrow.
South Lake to Brown Lake, ca. 9800 ft.

Helenium Bigelovii Gray. Bigelow Sneezeweed.
Schober's Pack Station (2, 56).

Helenium Hoopesii Gray.
Green Lake (246). A beautiful sneezeweed. Foliage poisonous to sheep.

Hieracium gracile Hook. var. *detonsum* Gray.
Ridge w. of Dingleberry Lake, 11000 ft. (138).

Hieracium horridum Fries.
Near Blue Lake (264); Dingleberry Lake (M).

Hulsea algida Gray. Hulsea.
Ridge w. of Schober's Holes, ca. 12200 ft. (119); Table Mountain 11000 ft. (M).

Lygodesmia spinosa Nutt.
Coyote Ridge, 9600 ft. (181).

Raillardella argentea Gray.
Ridge w. of Schober's Holes, ca. 11900 ft. (115); Baboon Lakes (Marian Rey).

Raillardella scaposa Gray.
N. of Midnight Lake, ca. 12000 ft. (293); Table Mountain, 11000 ft. (M).

Scorzonella nutans Geyer. Soda Daisy.
Above Dingleberry Lake, 10900 ft.

Senecio Fremontii T. & G. var. *occidentalis* Gray.
Above Blue Lake, 10300 ft.; Table Mountain, 11000 ft. (M).

Senecio lugens Rich. var. *exaltatus* (Nutt.) Gray.
W. of Dingleberry Lake, 10700 ft. (89); above Dingleberry Lake, 10700 ft. (B2907).

Senecio oreophila Greenm.
Coyote Ridge, 11500 ft. (207); Table Mountain, 10000 ft. (29).

Senecio pauciflorus Pursh.
Dingleberry Lake (B2966).

Senecio Scorzonella Greene.
Dingleberry Lake (311, B2965); w. of Dingleberry Lake, 10800 ft. (94). A beautiful golden-yellow-flowered plant of meadows in the Dingleberry Lake vicinity.

Senecio serra Hook.
Andrew's Camp (158).

Senecio speculicola J. T. Howell.
Schober's Holes (111, 112); Dingleberry Lake (M); Echo Lake (M); Table Mountain, 11000 ft. (M).

Senecio triangularis Hook.
Bishop Creek near Blue Lake, at ca. 10000 ft.

Solidago ciliosa Greene. Alpine Goldenrod.
Near Midnight Lake, 11250 ft. (B3017); Dingleberry Lake (M).

Solidago elongata Nutt.
Schober's Pack Station (4).

Tanacetum canum Eat.
Near Blue Lake (279); Green Lake (252).

Tetradymia canescens DC.
Schober's Pack Station to Table Mountain (22).